

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2020

OR

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

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

Date of event requiring this shell company report \_\_\_\_\_

Commission file number 001-36885

**TANTECH HOLDINGS LTD**

(Exact name of registrant as specified in its charter)

**Not Applicable**

(Translation of Registrant's Name into English)

**British Virgin Islands**

(Jurisdiction of incorporation or organization)

**c/o Tantech Holdings (Lishui) Co., Ltd.  
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Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol	Name of each exchange on which registered
Common shares	TANH	The Nasdaq Capital Market

Securities registered or to be registered pursuant to Section 12(g) of the Act:

**None**

(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

**Common Shares**

(Title of Class)

The number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report was:

35,894,097

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

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US  
GAAP

International Financial Reporting Standards as issued by the International Accounting  
Standards Board

Other

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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## Special Note Regarding Forward-Looking Statements

This annual report contains forward-looking statements. All statements contained in this annual report other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans, and our objectives for future operations, are forward-looking statements. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the “Risk Factors” section. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this annual report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We are under no duty to update any of these forward-looking statements after the date of this annual report or to conform these statements to actual results or revised expectations.

### PART I

#### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable for annual reports on Form 20-F.

#### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable for annual reports on Form 20-F.

#### ITEM 3. KEY INFORMATION

##### A. *Selected financial data.*

In the table below, we provide you with historical selected financial data for the fiscal years ended December 31, 2020, 2019, 2018, 2017 and 2016. The information is derived from our consolidated financial statements included elsewhere in this annual report and previous annual report filed. Historical results are not necessarily indicative of the results that may be expected for any future period. When you read this historical selected financial data, it is important that you read it along with the historical financial statements and related notes and “Item 5. Operating and Financial Review and Prospects” included elsewhere in this annual report. Our audited consolidated financial statements are prepared and presented in accordance with Generally Accepted Accounting Principles in the United States of America, or U.S. GAAP.

(All amounts in thousands of U.S. dollars)

**Statement of operations data:**

	<b>For the year ended December 31,</b>				
	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Revenues	\$ 42,284	\$ 49,230	\$ 29,561	\$ 42,298	\$ 39,902
Gross profit	4,476	5,977	8,029	10,556	13,023
Operating expenses	14,821	14,886	5,679	5,984	4,372
Income (loss) from operations	(10,345)	(8,909)	2,350	4,572	8,651
Income (loss) from continuing operations before income tax expense (credit)	(10,634)	(9,295)	2,028	4,476	8,333
Income tax expense (credit)	(612)	364	1,031	1,528	1,367
Net income (loss) from continuing operations	(10,022)	(9,659)	997	2,948	6,966
Net income (loss) from discontinued operations	-	(299)	83	65	(2,358)
Net income (loss)	(10,022)	(9,958)	1,080	3,013	4,608
Net income (loss) attributable to the non-controlling interest	(3,502)	(3,602)	(897)	(754)	308
Net income (loss) attributable to common stockholders	\$ (6,520)	\$ (6,356)	\$ 1,977	\$ 3,767	\$ 4,299
Earnings (loss) from continuing operations per share	\$ (0.22)	\$ (0.21)	\$ 0.07	\$ 0.15	\$ 0.19
Earnings (loss) from discontinued operations per share	\$ 0.00	\$ (0.01)	\$ 0.00	\$ 0.00	\$ (0.10)

**Balance sheet data:**

	<b>As of December 31,</b>				
	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Working capital	\$ 65,097	\$ 49,028	\$ 48,159	\$ 62,456	\$ 49,560
Current assets	81,901	68,162	70,314	89,245	63,659
Total assets	116,295	115,451	134,194	138,487	94,303
Current liabilities	16,804	19,134	22,155	26,789	14,097
Total liabilities	16,804	20,919	24,208	28,875	14,097
Total equity	\$ 99,491	\$ 94,532	\$ 109,986	\$ 109,612	\$ 80,206

**B. Capitalization and indebtedness.**

Not applicable for annual reports on Form 20-F.

**C. Reasons for the offer and use of proceeds.**

Not applicable for annual reports on Form 20-F.

**D. Risk factors.**

**Risks Related to Our Business and Industry**

***We face risks related to health epidemics that could impact our sales and operating results.***

Our business could be adversely affected by the effects of a widespread outbreak of contagious disease, including the outbreak of respiratory illness caused by a novel coronavirus first identified in Wuhan, Hubei Province, China. Any outbreak of contagious diseases, and other adverse public health developments, particularly in China, could have a material and adverse effect on our business operations. These could include disruptions or restrictions on our ability to produce our products, as well as temporary closures of our facilities or the facilities of our customers and third-party service providers. Any disruption or delay of our customers or third-party service providers would likely impact our operating results and the ability of the Company to continue as a going concern. In addition, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of China and many other countries, resulting in an economic downturn that could affect demand for our services and significantly impact our operating results.

***The coronavirus disease 2019 (COVID-19) has had a significant impact on our operations since January 2020 and could materially adversely affect our business and financial results for the fiscal year 2021.***

Our ability to manufacture and/or sell our products may be impaired by damage or disruption to our manufacturing, warehousing or distribution capabilities, or to the capabilities of our suppliers, logistics service providers or distributors as a result of the impact from COVID-19. This damage or disruption could result from events or factors that are impossible to predict or are beyond our control, such as raw material scarcity, pandemics, government shutdowns, disruptions in logistics, supplier capacity constraints, adverse weather conditions, natural disasters, fire, terrorism or other events. In December 2019, COVID-19 emerged in Wuhan, China. In compliance with the government mandates, the Company temporarily closed and its production operations were halted after the Chinese New Year holiday until late February 2020. After that, it requested that all employees either work remotely or work at premises in shifts for limited periods of time. It only fully resumed operations since March 23, 2020. The COVID-19 outbreak had a significant adverse impact on our business and operations of our fiscal year 2020. While the spread of the disease has gradually been under control in China, COVID-19 could adversely affect our business and financial results for the fiscal year 2021.

***A weakening of the Chinese economy could hurt demand for our Charcoal Doctor products and vehicle products.***

Our Charcoal Doctor products are generally considered “household use and decorative items,” meaning that these products are used for beautification and decoration purposes in addition to purification purposes. For example, consumers tend to purchase charcoal products for their value in absorbing odors and tend to purchase some of our bamboo charcoal products for these purposes and also for the perceived attractiveness of our products. We seek to design bamboo charcoal products that our customers want to display throughout their homes. As such, we have relied on consumer spending to drive sales in this product line. Since 2010, China’s GDP growth rate has slowed from more than 10% to less than 7%. If China’s economy continues to slow, or if customer spending for household items decreases, demand for our charcoal products may be reduced, which would negatively affect sales of our Charcoal Doctor products.

The demand for our vehicle products, such as electric vehicles (EVs) and fuel midibuses, are also impacted by Chinese economy. As a result, the slowed Chinese economy will negatively affect sales of our vehicle products.

***If we are unable to develop products that meet the demands of our customers, sales of our products could decrease.***

As a company that focuses primarily on consumer products in our Charcoal Doctor line of products, and to a lesser extent vehicles and mining, we rely on our ability to predict the needs and desires of customers several months before fulfilling orders for distributors. If we are unable to accurately forecast our customers’ preferences, we may lose market share to our competitors.

***Our two largest competitors are significantly larger than our company.***

Although our company is one of the largest providers of bamboo charcoal-based products of their kind, we compete with companies that make products that have equivalent function but that are not bamboo charcoal-based, and some of these competitors are much larger than we are. Charcoal Doctor’s two largest such competitors are Guangzhou Blue Moon Industry Co., Ltd, which makes Blue Moon branded products (“Blue Moon”), and Shanghai SC Johnson Wax Co., Ltd, which makes Mr. Muscle branded products (“Mr. Muscle”). Blue Moon and Mr. Muscle are substantially larger than Charcoal Doctor. We believe that they have a much greater customer recognition level than Charcoal Doctor. Charcoal Doctor has not historically spent substantial resources on television or print advertising. As a result, we expect that such competitors are likely to continue efforts to improve their brand recognition, while we may be unable to do so without changing our business plan to increase spending on such advertisements.

***As a charcoal-based provider of household products, we are subject to supply risks that some of our competitors do not face.***

Some of our largest competitors in the provision of household products such as our bamboo vinegar products rely on chemical solutions, rather than charcoal and derivatives of charcoal, to create their products. As a result, we do not believe they are subject to business risk in the event bamboo or wood charcoal supplies are compromised. On the other hand, if we were unable to procure bamboo or wood charcoal products or unable to procure them on attractive terms, our product line could become substantially more expensive or our growth rate could be limited, resulting in us becoming less competitive than others in our industry.

In summer 2012, we faced a supply shortage based on local government initiatives to reduce the risk of fire caused by charcoal. As a result, the local government in Daxing Anlin, where one of our main suppliers of wood-based OEM BBQ charcoal is located, restricted the production of charcoal during June, July and August 2012. At that time, our stock of OEM BBQ charcoal was insufficient to avoid demand pressures. As a result, our revenues declined during this period. If local governments similarly reduce production of charcoal in the future, we could be negatively impacted by the lack of supply, either as to our ability to obtain suitable product or by our ability to obtain such product at a reasonable price.

***We lack product and business diversification. Accordingly, our future revenues and earnings are more susceptible to fluctuations than a more diversified company.***

Our primary business activities focus on bamboo-related products. Because our focus is limited in this way, any risk affecting the bamboo industry or consumers' desire for bamboo- and bamboo charcoal-related products could disproportionately affect our business. Though we are broadening our business focus to vehicles and investments in mining, our lack of product and business diversification at this time could inhibit the opportunities for growth of our business, revenues and profits.

***Our suppliers' bamboo is subject to risks related to fire, flooding, disease and pests.***

While bamboo is considered a relatively hardy plant, it remains a plant that can be burned in fires or damaged by prolonged flooding or exposure to diseases, fungus and pests. If our suppliers' bamboo resources were affected by such natural risks, it could be more difficult or expensive to source the bamboo charcoal for our products.

***Increases in bamboo charcoal costs may negatively affect our operating results.***

While bamboo is a renewable resource (and thus bamboo products like bamboo charcoal may be considered renewable), the price of raw materials may be inelastic when we wish to purchase supplies. While we have attempted to mitigate this risk by taking advantage of decreases in other expenses (due to better transportation infrastructure reducing the cost of bringing materials to our company and from our company to our customers) and improving efficiency, we cannot guarantee that we will be able to control our material expenses. In addition, as we are competing based upon low price, we will risk losing customers by increasing our selling prices. To the extent our expenses increase beyond the price we can charge our customers, our operating results could be harmed.

***We face competition from smaller competitors that may be able to provide similar charcoal briquette products at lower prices.***

Our charcoal briquette products are valued primarily for their ability to burn and create heat. As result, our competitors in this line of business do not require the same high technology as our competitors for our Charcoal Doctor products. For this reason, our charcoal briquette business is subject to competition from a variety of small producers, which may be able to provide similar product for a much lower price. To the extent our customers discriminate based on price, we may find that we lose market share to such producers. Moreover, we may be required to reduce our price in order to maintain or slow loss of market share for such products. As charcoal briquette products make up a substantial percentage of revenues, even at a lower profit margin, the reduction of sales of such products could hurt our company.

***Our electric vehicle (EV) business of Shangchi Automobile Co., Ltd. ("Shangchi Automobile") does not meet our expectation when we acquired it, and we do not know if such business will grow in the future.***

We acquired 70% of Shangchi Automobile, formerly known as Suzhou E-Motors Co., Ltd. ("Suzhou E-Motors"), in 2017 as we valued its potential in EV business. While the overall EV market in China is growing, Shangchi Automobile's EV business has not reached to our original expectation. During the year 2020, due to the impact of COVID-19, Shangchi Automobile was unable to maintain normal operations and all sales and marketing events were disrupted due to travel restrictions and other government regulations. While the spread of COVID-19 has gradually been under control in China, it could adversely affect the Company's business for the future. Shangchi Automobile has no immediate business plan to start manufacturing the electric vehicles. Management determined that the electric vehicle manufacturing license should be impaired. The Company recorded an impairment of \$11,998,606 for the year ended December 31, 2020. For the year ended December 31, 2019, the Company recorded an impairment of \$1,103,332 because the carrying amount was not recoverable and it exceeded its fair value based on the management's assessment for the electric vehicle manufacturing license.

Our future growth of EV business is highly dependent upon the adoption by customers of, and we are subject to a risk of any reduced demand for, alternative fuel vehicles in general and electric vehicles (EVs) in particular. The market for alternative fuel vehicles (including EVs) is relatively new and rapidly evolving, characterized by rapidly changing technologies, price competition, evolving government regulation and industry standards both domestically and abroad, frequent new vehicle announcements and changing consumer demands and behaviors. If the market for EVs in China does not develop as we expect or develops more slowly than we expect, our business, prospects, financial condition and operating results will be harmed.

***Our high concentration of vehicle sales to relatively few customers may result in significant impact on our liquidity, business, results of operations and financial condition.***

For the year ended December 31, 2020, one customer accounted for 100% of vehicle sales for Shangchi Automobile. For the year ended December 2018, another customer accounted for 100% of vehicle sales for Shangchi Automobile. No vehicle sales happened in the year ended December 31, 2019 from an accounting perspective. Mainly due to the concentration of sales to relatively few customers, loss of one customer will have relatively high impact on our operational results. We expect this trend to continue for the foreseeable future. In the event there is an unfavorable change in our business relationship with our significant customers, it could have a material adverse effect on our business and financial results.

***Our vehicle models are highly dependent on the approvals from the Ministry of Industry and Information Technology of the People's Republic China (the "MIIT"). A failure to obtain approval quickly or at all might cause significant delays in production and sales, results of operations and financial conditions.***

Through Shangchi Automobile, we submit certain vehicle models' application to the MIIT from time to time. The MIIT's approval of our application is the key for us to produce and sell any related vehicle products. Any delays or rejections in our applications will have significant negative impact on our Shangchi Automobile's operations and financial conditions.

***Our EVs make use of lithium-ion battery cells, which have the potential to catch fire or vent smoke and flame. This may lead to additional concerns about batteries used in automotive applications.***

The battery packs in our EV products make use of lithium-ion cells. On rare occasions, lithium-ion cells can rapidly release the energy they contain by venting smoke and flames in a manner that can ignite nearby materials as well as other lithium-ion cells. Extremely rare incidents of laptop computers, cell phones and EV battery packs catching fire have focused consumer attention on the safety of these lithium-ion cells. These events have raised concerns about batteries used in automotive applications. To address these questions and concerns, a number of battery cell manufacturers are pursuing alternative lithium-ion battery cell chemistries to improve safety. We may have to recall our vehicles or participate in a recall of a vehicle that contains our battery packs, or redesign our battery packs, which would be time consuming and expensive. Also, negative public perceptions regarding the suitability of lithium-ion cells for automotive applications or any future incident involving lithium-ion cells such as a vehicle or other fire, even if such incident does not involve us, could seriously harm our business.

***Compliance with environmental regulations can be expensive, and noncompliance with these regulations may result in adverse publicity and potentially significant monetary damages and fines.***

Our various business operations generate noise, waste water, gaseous byproduct and other industrial waste. We are required to comply with all national and local regulations regarding the protection of the environment. We are in compliance with current environmental protection requirements and have all necessary environmental permits to conduct our business. However, if more stringent regulations are adopted in the future, the costs of compliance with these new regulations could be substantial. Additionally, if we fail to comply with present or future environmental regulations, we may be required to pay substantial fines, suspend production or cease operations. Any failure by us to control the use of, or to adequately restrict the unauthorized discharge of, hazardous substances could subject us to potentially significant monetary damages and fines or suspensions to our business operations. Certain laws, ordinances and regulations could limit our ability to develop, use, or sell our products.



***Developments in alternative technologies or improvements in the internal combustion engine may materially adversely affect the demand for our EV products.***

Significant developments in alternative technologies, such as advanced diesel, ethanol, fuel cells or compressed natural gas, or improvements in the fuel economy of the internal combustion engine, may materially and adversely affect our business and prospects in ways we do not currently anticipate. Any failure by us to develop new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay our development and introduction of new and enhanced EV products, which could result in the loss of competitiveness of our EVs, decreased revenue and a loss of market share to competitors.

***Our strategy of developing driverless street sweepers may fail and as a result, our future results of operations and growth prospects may be materially and adversely affected.***

We have been focusing on developing driverless street sweepers. While we believe the potential market of these products could be considerable, there are chances that our driverless street sweepers do not have competitive strengths, the demand is not as much as we expect, or the revenue is not high enough to cover our costs including R&D expenses. Accordingly, our strategy of developing driverless street sweepers may fail and we may lose all of our investments. Our future results of operations and growth prospects may be materially and adversely affected.

***If we are unable to keep up with advances in EV technology, we may suffer a decline in our competitive position.***

We may be unable to keep up with changes in EV technology, and we may suffer a resulting decline in our competitive position. Any failure to keep up with advances in EV technology would result in a decline in our competitive position which would materially and adversely affect our business, prospects, operating results and financial condition. Our research and development efforts may not be sufficient to adapt to changes in EV technology. As technologies change, we plan to upgrade or adapt the vehicles and introduce new models in order to continue to provide vehicles with the latest technology, in particular battery cell technology. However, our vehicles may not compete effectively with alternative vehicles if we are not able to source and integrate the latest technology into our vehicles. For example, we do not manufacture battery cells, which makes us dependent upon other suppliers of battery cell technology for our battery packs.

***Changes to the Chinese government's subsidy/rebate support policies and further delays in subsidy/rebate payments may have further negative impacts on our EV segment.***

The Company sells electric vehicles in China and is eligible for a government manufacturing rebate on each qualifying electric vehicle sold. The Chinese central government subsidy support policies, or rebate policies, have been changing every year. The policy changes have caused certain uncertainties and negative impacts on our EV operations and may cause further negative impacts on our EV segment. For example, the Chinese central government subsidy support policies effective as of January 1, 2017, called for a 20% of reduction in central government subsidies per electric car in 2017 from its 2016 level and the total local government subsidy matched to be not more than 50% of the total central government subsidies per electric car. The reduction of subsidies from both the central government and local governments inevitably increased the costs to the consumers to purchase our EVs, which caused temporary pressure for us to expand our EV sales. The change in subsidy payment methods in 2017 from paid-in-advance to paid post-sale and further delay in releasing subsidy payments for the EVs manufactured and sold in the prior years also caused the potential delay in collection of the accounts receivable from our business partners, which temporarily increased the pressure on our working capital for continuing operations. Since 2018, the rebate policies required all the EVs manufactured since 2016 to install the national platform so the government could monitor the mileage and other information. Accordingly, we installed the platform on our EVs manufactured since 2016. Since 2019, the rebate policies required the battery capacity attenuation can't exceed 20%. Accordingly, we plan to inspect the batteries of our EVs. In addition, we decided to pause EV productions as our costs would not be covered when we are not able to receive the government rebates to EV manufacturers timely because of the much stricter new government rebate policy issued in 2019 which has become stricter in 2020 and 2021.

The unavailability, reduction or elimination of government and economic incentives could have a material adverse effect on our business, financial condition, operating results and prospects.

***We do not own 100% of our electric vehicle subsidiary, and we are a minority investor in Libo Haokun and Fuquan Chengwang, our mining investments.***

We only own 70% of Shangchi Automobile. Zhangjiagang Jinke Chuangtou Co., Ltd. (“Jinke”) holds the remaining 30% equity interest in Shangchi Automobile and has significant influence on its operation. The potential for differences between us and Jinke may result in ineffective operation of Shangchi Automobile and our operating results would be materially negatively affected.

Further, we own an indirect 18% interest in Libo Haokun Stone Co., Ltd. (“Libo Haokun”), a marble mining operating company, and an indirect 14.76% interest in Fuquan Chengwang Mining Co., Ltd. (“Fuquan Chengwang”), a basalt mining company. As such, we have an inability to control or significantly influence Libo Haokun’s and Fuquan Chengwang’s management and operations. If we believe that Libo Haokun and Fuquan Chengwang are being managed or operated ineffectively, we have limited options.

***Outstanding bank loans may reduce our available funds.***

We have approximately \$7.3 million in outstanding bank loans and bank acceptance notes payable as of December 31, 2020. The loans and payables are held at multiple banks, and we used our land and property as the collateral for the debt. While our land and property are worth more than the total loan amount and we also have approximately \$37.1 million in cash and approximately \$81.9 million of current assets available to pay the debt, there can be no guarantee that we will be able to pay all amounts when due or refinance the amounts on terms that are acceptable to us or at all. If we are unable to make our payments when due or to refinance such amounts, our property could be foreclosed and our business could be negatively affected.

While we do not believe they will impact our liquidity, the terms of the debt agreements impose significant operating and financial restrictions on us. These restrictions could also have a negative impact on our business, financial condition and results of operations by significantly limiting or prohibiting us from engaging in certain transactions, including but not limited to: incurring or guaranteeing additional indebtedness; transferring or selling assets currently held by us; and transferring ownership interests in certain of our subsidiaries. The failure to comply with any of these covenants could cause a default under our other debt agreements. Any of these defaults, if not waived, could result in the acceleration of all of our debt, in which case the debt would become immediately due and payable. If this occurs, we may not be able to repay our debt or borrow sufficient funds to refinance it on favorable terms, if any.

***If the value of our property decreases, we may not be able to refinance our current debt.***

All of our current debt is secured by our real and other business property. If the value of our real property decreases, we may find that banks are unwilling to loan money to us secured by our business property. A drop in property value could also prevent us from being able to refinance that loan when it becomes due on acceptable terms or at all.

***If our expansions into new businesses are not successful, our future results of operations and growth prospects may be materially and adversely affected.***

On January 27, 2016, we entered into a framework agreement to acquire Suzhou E-Motors which is now known as Shangchi Automobile, a specialty electric vehicles manufacturer. Pursuant to the Call Option Agreement executed on May 2, 2016, Supplemental Agreement I signed on December 22, 2016 and Supplemental Agreement II signed on July 12, 2017, the Company acquired a 70% equity interest of Shangchi Automobile with total cash consideration of RMB 103,200,000 (approximately \$15.9 million) and a share consideration of 2,500,000 restricted shares of the Company’s common stock.

Our 70% equity interest in Shangchi Automobile comprises a 19% equity interest owned directly through Hangzhou Jiyi Investment Management Co., Ltd (“Jiyi”) and a 51% equity interest owned through a series of contractual agreements with the owners of Hangzhou Wangbo Investment Management Co., Ltd (“Wangbo”). Jiyi is 100% owned through Shanghai Jiamu Investment Management Co., Ltd (“Jiamu”), which is, in turn, wholly owned by Euroasia International Capital (“Euroasia”), a 100% owned subsidiary of the Company. These agreements include an Exclusive Management Consulting and Technology Agreement, two Equity Pledge Agreements, two Exclusive Call Option Agreements, two Proxy Agreements and two Powers of Attorney (collectively, the “VIE Agreements”). Pursuant to the VIE Agreements, Jiamu has the exclusive right to provide to Wangbo consulting services related to business operations including technical and management consulting services. All the above contractual agreements obligate Jiamu to absorb a majority of the risk of loss from Wangbo’s activities and entitle Jiamu to receive a majority of their residual returns. In essence, Jiamu has gained effective control over Wangbo. Therefore, the Company believes that Wangbo should be considered as a Variable Interest Entity (“VIE”) under the Statement of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 810 “Consolidation.”

The Company had originally negotiated to acquire 100% of Shangchi Automobile; however, following initial discussions, Shangchi Automobile's minority shareholder, Jinke, a local government-led venture capital fund, opted to retain its 30% interest.

We may face competition from existing leading players in this business. If we cannot successfully address the new challenges and compete effectively against the existing leading players in the new businesses, we may not be able to develop a sufficiently large customer and user base, recover costs incurred for investing in, developing and marketing new businesses, and eventually achieve profitability from these businesses, and our future results of operations and growth prospects may be materially and adversely affected.

***We face risks and uncertainties associated with our recent investment in mining and processing operations.***

In January 2018, we made a purchase of an indirect 18% interest in Libo Haokun, a marble mining operating company. In November 2019, we made a purchase of an indirect 18% interest in Fuquan Chengwang, a basalt mining company. The Company's indirect interest in Fuquan Chengwang was diluted from 18% to 14.76% in April 2020 after a third party signed an investment agreement with Jingning Meizhongkuang Industry Co., Ltd. to invest in Fuquan Chengwang by paying \$7.13 million (RMB 46.5 million) to exchange 18% of the interest of Fuquan Chengwang. Libo Haokun's and Fuquan Chengwang's mining and processing operations are subject to a number of operating risks and hazards, some of which are beyond our control. These operating risks and hazards include: (i) unexpected maintenance or technical problems; (ii) periodic interruptions of its mining operations due to inclement or hazardous weather conditions and natural disasters; (iii) industrial accidents; (iv) power or fuel supply interruptions; (v) critical equipment failures; and (vi) unusual or unexpected variations in the quarry and geological or mining conditions, such as instability of the slopes and subsidence of the working areas. These risks and hazards may result in personal injury, damage to, or destruction of, properties or production facilities, environmental damages, business interruptions and damage to Libo Haokun's and Fuquan Chengwang's business reputation. In addition, the breakdown of machinery and equipment, difficulties or delays in obtaining replacement machinery and equipment, natural disasters, industrial accidents or other events could temporarily disrupt its operations. Any disruption for a sustained period to the operations of Libo Haokun's and Fuquan Chengwang's quarry or supporting infrastructure, or any change to the natural environment surrounding its quarry may have a material adverse effect on our investment in Libo Haokun and Fuquan Chengwang.

In addition, while Fuquan Chengwang has received a renewed government-issued mining permit with a term from March 2021 to March 2024, it took long time for it to go through the renewal process, and we do not know if it will be able to renew it again when the permit expires.

***We may experience increased costs or losses resulting from the hazards and uncertainties associated with mining operations.***

The exploration for natural resources and the development and production of mining operations are activities that involve a high level of uncertainty. These can be difficult to predict and are often affected by risks and hazards outside of our control. These factors include, but are not limited to:

- Industrial accidents, including in connection with the operation of mining transportation equipment and accidents associated with the preparation and ignition of any blasting operations, milling equipment, conveyor systems and transportation of chemicals, explosions or other materials;
- Environmental hazards, including discharge of metals, concentrates, pollutants or hazardous chemicals;
- Surface or underground fires or floods;

- Unexpected geological formations or conditions (whether in mineral or gaseous form);
- Ground and water conditions;
- Fall-of-ground accidents in underground operations;
- Seismic activity; and
- Other natural phenomena, such as lightning, cyclonic or tropical storms, floods or other inclement weather conditions.

The occurrence of one or more of these events in connection with Libo Haokun's and Fuquan Chengwang's exploration activities and development and production of mining operations may result in the death of, or personal injury to, its employees, other personnel or third parties, the loss of mining equipment, damage to or destruction of mineral properties or production facilities, monetary losses, deferral or unanticipated fluctuations in production, environmental damage and potential legal liabilities, all of which may adversely affect Libo Haokun's, Fuquan Chengwang's and our reputation, business, prospects, results of operations and financial position.

***Mining companies are increasingly required to consider and provide benefits to the communities and countries in which they operate, and are subject to extensive environmental, health and safety laws and regulations.***

As a result of public concern about the real or perceived detrimental effects of economic globalization and global climate impacts, businesses generally and corporations in natural resources industries, such as Libo Haokun and Fuquan Chengwang, in particular, face increasing public scrutiny of their activities. These businesses are under pressure to demonstrate that, as they seek to generate satisfactory returns on investment to shareholders, other stakeholders, including employees, governments, communities surrounding operations and the countries in which they operate, benefit and will continue to benefit from their commercial activities. Such pressures tend to be particularly focused on companies whose activities are perceived to have a high impact on their social and physical environment. The potential consequences of these pressures include reputational damage, legal suits, increasing social investment obligations and pressure to increase taxes and royalties payable to governments and communities.

In addition, Libo Haokun's and Fuquan Chengwang's ability to successfully obtain key permits and approvals to explore for, develop and operate mines and to successfully operate in communities in China will likely depend on its ability to develop, operate and close mines in a manner that is consistent with the creation of social and economic benefits in the surrounding communities, which may or may not be required by law. Libo Haokun's and Fuquan Chengwang's ability to obtain permits and approvals and to successfully operate in particular communities may be adversely impacted by real or perceived detrimental events associated with its activities or those of other mining companies affecting the environment, human health and safety of communities in which we operate. Delays in obtaining or failure to obtain government permits and approvals may adversely affect Libo Haokun's, Fuquan Chengwang's and our operations, including Libo Haokun's and Fuquan Chengwang's ability to explore or develop properties, commence production or continue operations. Key permits and approvals may be revoked or suspended or may be varied in a manner that adversely affects Libo Haokun's and Fuquan Chengwang's operations, including our ability to explore or develop properties, commence production or continue operations.

Libo Haokun's and Fuquan Chengwang's exploration, development, mining and processing operations are subject to extensive laws and regulations governing worker health and safety and land use and the protection of the environment, which generally apply to air and water quality, protection of endangered, protected or other specified species, hazardous waste management and reclamation. Libo Haokun and Fuquan Chengwang have made, and expects to make in the future, significant expenditures to comply with such laws and regulations. Compliance with these laws and regulations imposes substantial costs and burdens, and can cause delays in obtaining, or failure to obtain, government permits and approvals which may adversely impact Libo Haokun's and Fuquan Chengwang's closure processes and operations.

Future changes in applicable laws, regulations, permits and approvals or changes in their enforcement or regulatory interpretation could substantially increase costs to achieve compliance, lead to the revocation of existing or future exploration or mining rights or otherwise have an adverse impact on Libo Haokun's, Fuquan Chengwang's and our results of operations and financial position. Increased global attention or regulation on consumption of water by industrial activities, as well as water quality discharge, and on restricting or prohibiting the use of hazardous substances in processing activities could similarly have an adverse impact on Libo Haokun's and Fuquan Chengwang's results of operations and financial position due to increased compliance and input costs.

***Libo Haokun's and Fuquan Chengwang's business requires substantial capital investment and it may be unable to raise additional funding on favorable terms.***

The construction and operation of potential future mining projects and various exploration projects will require significant funding. Libo Haokun's and Fuquan Chengwang's operating cash flow and other sources of funding may become insufficient to meet all of these requirements, depending on the timing and costs of development of these and other projects. As a result, new sources of capital may be needed to meet the funding requirements of these investments, fund its ongoing business activities and pay dividends. Libo Haokun's and Fuquan Chengwang's ability to raise and service significant new sources of capital will be a function of macroeconomic conditions, future marble prices, its operational performance and its current cash flow and debt position, among other factors. In the event of lower marble prices, unanticipated operating or financial challenges, or a further dislocation in the financial markets as experienced in recent years, Libo Haokun's and Fuquan Chengwang's ability to pursue new business opportunities, invest in existing and new projects, fund its ongoing operations, retire or service all of our outstanding debt and pay dividends could be significantly constrained, all of which could have an adverse effect on our minority investment.

***Competition from other natural resource companies may harm Libo Haokun's and Fuquan Chengwang's business.***

Libo Haokun and Fuquan Chengwang compete with other natural resource companies to attract and retain key executives, skilled labor, contractors and other employees. They also compete with other natural resource companies for specialized equipment, components and supplies necessary for exploration and development. They may be unable to continue to attract and retain skilled and experienced employees, or to obtain the services of skilled personnel and contractors or specialized equipment or supplies.

***We may require additional financing in the future and our operations could be curtailed if we are unable to obtain required additional financing when needed.***

We may need to obtain additional debt or equity financing to fund future capital expenditures. While we do not anticipate seeking additional financing in the immediate future, any additional equity may result in dilution to the holders of our outstanding shares of capital stock. Additional debt financing may include conditions that would restrict our freedom to operate our business, such as conditions that:

- limit our ability to pay dividends or require us to seek consent for the payment of dividends;
- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a portion of our cash flow from operations to payments on our debt, thereby reducing the availability of our cash flow to fund capital expenditures, working capital and other general corporate purposes; and
- limit our flexibility in planning for, or reacting to, changes in our business and our industry.

We cannot guarantee that we will be able to obtain any additional financing on terms that are acceptable to us, or at all.

***The loss of any of our key charcoal product customers could reduce our revenues and our profitability.***

Our key charcoal product customers are principally third-party distributors in the PRC. For the years ended December 31, 2020, five major customers accounted for approximately 28%, 20%, 14%, 12% and 10% of the Company's total charcoal product sales, respectively. There can be no assurance that we will maintain or improve the relationships with these customers, or that we will be able to continue to supply these customers at current levels or at all. Any failure to pay by these customers could have a material negative effect on our company's business. In addition, having a relatively small number of customers may cause our quarterly results to be inconsistent, depending upon when these customers pay for outstanding invoices.

If we cannot maintain long-term relationships with these major customers, the loss of our sales to them could have an adverse effect on our business, financial condition and results of operations.

***We rely on third-party distributors for a substantial portion of our sales, which could affect our ability to efficiently and profitably distribute and market our products, maintain our existing markets and expand our business into other geographic markets.***

Sales of our products through distributors constituted approximately 92%, 90% and 92% of our total sales in 2020, 2019 and 2018, respectively. To the extent our distributors are distracted from selling our products or do not expend sufficient efforts in managing and selling our products, our sales will be adversely affected. Our ability to maintain our distribution network and attract additional distributors will depend on a number of factors. Some of these factors include: (i) the level of demand for our brand and products in a particular market; (ii) our ability to maintain current distribution relationships or establish and maintain successful relationships with distributors in new geographic areas. These factors are partially outside our control because consumers ultimately determine what they purchase and we cannot control the actions of our distributors. Our inability to achieve any of these factors in a geographic distribution area will have a material adverse effect on our relationships with our third party distributors in that particular geographic area, thus limiting our ability to maintain and expand our market, which will likely adversely affect our revenues and financial results.

***We buy our supplies from a relatively limited number of suppliers, and disruption in supply may increase our production cost.***

For the year ended December 31, 2020, two major suppliers accounted for approximately 70% of the Company's total purchases. For the years ended December 31, 2019 and 2018, three major suppliers accounted for approximately 76% and 72% of the Company's total purchases, respectively.

The loss of any such suppliers could result in increased expenses for our company and result in adverse impact on our business, financial condition and results of operations.

***Our bank accounts are not insured or protected against loss.***

We maintain our cash with various banks located in the PRC. Our cash accounts are not insured or otherwise protected. Should any bank or trust company holding our cash deposits become insolvent, or if we are otherwise unable to withdraw funds, we would lose the cash on deposit with that particular bank or trust company.

***We are subject to risks relating to the banking facilities we use to overcome cash flow issues.***

We generate a large proportion of our sales revenue through wholesale channels and distribution networks requiring us to extend net-90 day payment terms in most cases. These payment terms are difficult to negotiate given the significant bargaining power of the counterparties to the agreements. For this reason, we rely on banking facilities to overcome cash flow shortfalls between delivery and payment collection. Although we engage third-party debt collection agencies when required to manage counterparty risk, we cannot guarantee that we will receive payment in a timely fashion from our customers. To the extent we fail to receive payment in time to service our banking facilities, our business to be materially impacted.

***We are substantially dependent upon our senior management and key research and development personnel.***

We are highly dependent on our senior management to manage our business and operations and our key research and development personnel for the development of new products and the enhancement of our existing products and technologies. In particular, we rely on our CEO, Mr. Wangfeng Yan to manage our operations to some extent. Mr. Yan has been involved in the bamboo charcoal industry by working at our subsidiaries for almost ten years. Due to his experience in the industry in general and our company in particular for such a long period of time, he would be difficult to replace.

While we provide the legally required personal insurance for the benefit of our employees, we do not maintain key man life insurance on any of our senior management or key personnel. The loss of any one of them would have a material adverse effect on our business and operations. Competition for senior management and our other key personnel is intense, and the pool of suitable candidates is limited. We may be unable to quickly locate a suitable replacement for any senior management or key personnel that we lose. In addition, if any member of our senior management or key personnel joins a competitor or forms a competing company, they may compete with us for customers, business partners and other key professionals and staff members of our company. Although each of our senior management and key personnel has signed a confidentiality and non-competition agreement in connection with his employment with us, we cannot assure you that we will be able to successfully enforce these provisions in the event of a dispute between us and any member of our senior management or key personnel.

We compete for qualified personnel with other technology companies and research institutions. Intense competition for these personnel could cause our compensation costs to increase, which could have a material adverse effect on our results of operations. Our future success and ability to grow our business will depend in part on the continued service of these individuals and our ability to identify, hire and retain additional qualified personnel. If we are unable to attract and retain qualified employees, we may be unable to meet our business and financial goals.

***We are heavily dependent upon the services of experienced personnel who possess skills that are valuable in our industry, and we may have to actively compete for their services.***

We are heavily dependent upon our ability to attract, retain and motivate skilled personnel to serve our customers. Many of our personnel possess skills that would be valuable to all companies engaged in our industry. Consequently, we expect that we will have to actively compete for these employees. Some of our competitors may be able to pay our employees more than we are able to pay to retain them. Our ability to profitably operate is substantially dependent upon our ability to locate, hire, train and retain our personnel. Moreover, our pool of available labor in Lishui is limited, as Lishui is a relatively small city in China. Accordingly, it may be difficult to recruit personnel to move to Lishui to work and to keep talented individuals from moving to other employers who recruit them. There can be no assurance that we will be able to retain our current personnel, or that we will be able to attract and assimilate other personnel in the future. If we are unable to effectively obtain and maintain skilled personnel, the development and quality of our services could be materially impaired.

***Failure to manage our growth could strain our management, operational and other resources, which could materially and adversely affect our business and prospects.***

Our growth strategy includes building our brand, increasing market penetration of our existing products, developing new products, increasing our targeting of the home respiratory market in China, and increasing our exports. Pursuing these strategies has resulted in, and will continue to result in substantial demands on management resources. In particular, the management of our growth will require, among other things:

- continued enhancement of our research and development capabilities;
- information technology system enhancement;
- stringent cost controls and sufficient liquidity;
- strengthening of financial and management controls and information technology systems; and
- increased marketing, sales and support activities; and hiring and training of new personnel.

If we are not able to manage our growth successfully, our business and prospects would be materially and adversely affected.

***We have not yet implemented advanced logistical management techniques, which may hamper our efficiency and growth.***

We have not yet implemented digital logistic management solutions and have not applied any advanced management techniques, such as enterprise resource planning or any structured logistical system and procedures, which may result in a loss of efficiency and require investment at a later stage. We have not yet committed to implement such systems and cannot guarantee that we will do so in the near future. To the extent we do not implement such techniques in a timely or efficient manner, we may be at a competitive disadvantage to those of our competitors who do.

***Our business may be negatively affected by adverse publicity.***

Failure or perceived failure by us to comply with legal, regulatory and compliance requirements could result in adverse publicity. In September 2015, we were subject to significant negative publicity resulting from reports published by a short seller of our shares. This negative publicity resulted in significant volatility in the trading price of our shares. Such adverse publicity could result in reputational harm, lead to increased regulatory supervision, affect our ability to attract and retain customers, affect our ability to attract and retain key personnel, affect our ability to maintain access to the capital markets, or have other material adverse effects on us in ways that are not predictable.

***Our business may be negatively affected by low share prices in the stock market.***

The trading price of our shares has been fluctuated over the past year. And we encountered an over 90% decline in market value since 2015. The continued decline in our share price could continue to harm investor confidence, affect our ability to retain existing investors, affect our ability to attract potential investors, affect our ability to maintain access to the capital market, or have other material adverse effects on us in ways that are not predictable.

***We may be affected by disruptions to our production facilities.***

Our production facilities are subject to breakdown or failure of equipment, power supplies or processes, performance below expected levels of output or efficiency, obsolescence, labor disputes, natural disasters and the need to comply with relevant regulatory and requirements. From time to time, we may need to carry out planned shutdowns of our production plants for routine maintenance, statutory inspections and testing and may need to shut down various plants for capacity expansions and equipment upgrades. Moreover, our production processes are continuously being modified and updated. As a result of manufacturing process updates and improvements, from time to time, we may experience shutdowns, and disruptions to the operations. The occurrence of any of the above events may cause us to stop or suspend our production operations and we may not be able to deliver the products to our customers on a timely basis, which would have an adverse impact on its business, financial position and profitability.

***If we fail to protect our intellectual property rights, it could harm our business and competitive position.***

We rely on a combination of patent, trademark and trade secret laws and non-disclosure agreements and other methods to protect our intellectual property rights. We currently hold five patents on charcoal products and eighteen patents on vehicles.

The process of seeking patent protection can be lengthy and expensive, our patent applications may fail to result in patents being issued, and our existing and future patents may be insufficient to provide us with meaningful protection or commercial advantage. Our patents and patent applications may also be challenged, invalidated or circumvented.

We also rely on trade secret rights to protect our business through non-disclosure provisions in employment agreements with employees. If our employees breach their non-disclosure obligations, we may not have adequate remedies in China, and our trade secrets may become known to our competitors.



Implementation of PRC intellectual property-related laws has historically been lacking, primarily because of ambiguities in the PRC laws and enforcement difficulties. Accordingly, intellectual property rights and confidentiality protections in China may not be as effective as in the United States or other western countries. Furthermore, policing unauthorized use of proprietary technology is difficult and expensive, and we may need to resort to litigation to enforce or defend patents issued to us or to determine the enforceability, scope and validity of our proprietary rights or those of others. Such litigation and an adverse determination in any such litigation, if any, could result in substantial costs and diversion of resources and management attention, which could harm our business and competitive position.

***We may be exposed to intellectual property infringement and other claims by third parties which, if successful, could disrupt our business and have a material adverse effect on our financial condition and results of operations.***

Our success depends, in large part, on our ability to use and develop our technology and know-how without infringing third party intellectual property rights. If we sell our branded products internationally, and as litigation becomes more common in China, we face a higher risk of being the subject of claims for intellectual property infringement, invalidity or indemnification relating to other parties' proprietary rights. Our current or potential competitors, many of which have substantial resources and have made substantial investments in competing technologies, may have or may obtain patents that will prevent, limit or interfere with our ability to make, use or sell our branded products in either China or other countries, including the United States and other countries in Asia. The validity and scope of claims relating to patents in our industry involve complex scientific, legal and factual questions and analysis and, as a result, may be highly uncertain. In addition, the defense of intellectual property suits, including patent infringement suits, and related legal and administrative proceedings can be both costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. Furthermore, an adverse determination in any such litigation or proceedings to which we may become a party could cause us to:

- pay damage awards;
- seek licenses from third parties;
- pay ongoing royalties;
- redesign our branded products; or
- be restricted by injunctions,

each of which could effectively prevent us from pursuing some or all of our business and result in our customers or potential customers deferring or limiting their purchase or use of our branded products, which could have a material adverse effect on our financial condition and results of operations.

***We are dependent on our brand and trademarks.***

We rely on our "Charcoal Doctor" brand in the marketing and distribution of a majority of our bamboo charcoal products. We believe that we have built significant goodwill in our brand in terms of the quality of products and services and it is widely recognized by the industry in the PRC. We consider our "Charcoal Doctor" brand to be vital in promoting product recognition and customer loyalty. Hence, if there are any major defects in our products or adverse publicity on our brand, the goodwill in our "Charcoal Doctor" brand will be adversely affected and our customers may lose confidence in our products. This will adversely affect our sales of charcoal products, hence affecting our business and financial performance.

***Our charcoal briquette products have relatively low technical requirements; therefore, barriers to entry are minimal.***

We expect to face competition for our charcoal briquette products because competitors can create similar products at a relatively low cost because there are minimal barriers of entry. If competitors enter our market to create similar products they may be able to do so for a much lower price. To the extent our customers discriminate based on price, we may find that we lose market share to such producers. Moreover, we may be required to reduce our price in order to maintain or slow loss of market share for such products. As charcoal briquette products make up a substantial percentage of our revenues, even at a lower profit margin, the reduction of sales of such products could hurt our company.

## **Risks Related to Doing Business in China**

### ***Chinese economic downturn or growth slowdown may harm our business.***

Since 2010, Chinese economic growth has been slowing down from double-digit GDP speed. The situation has impacted many industries and economic segments in China, such as restaurants, the hospitality industry, auto industry, and discretionary consumer spending. Our business operations in China mainly rely on consumer cash availability and spending, consumer demand for our products and consumer confidence, which are impacted by an economic downturn. The recent rapid spread of COVID-19, or fear of such an event, can have a material adverse effect on the demand for our products and therefore have a material adverse effect on our business and results of operations. Office closings, travel restrictions and required quarantines implemented in China has caused significant slowdown of China's economic growth and could further adversely affect China's economy resulting in an economic downturn. If China's economy continues to slow down or go into recession, our financial and operation results could be materially and adversely affected as a result of slower consumer spending on our products or below par performance of the consumer discretionary goods industries.

### ***U.S. regulatory bodies may be limited in their ability to conduct investigations or inspections of our operations in China.***

The Securities and Exchange Commission (the "SEC"), the U.S. Department of Justice and other U.S. authorities may also have difficulties in bringing and enforcing actions against us or our directors or executive officers in the PRC. The SEC has stated that there are significant legal and other obstacles to obtaining information needed for investigations or litigation in China. China has recently adopted a revised securities law that became effective on March 1, 2020, Article 177 of which provides, among other things, that no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. Accordingly, without governmental approval in China, no entity or individual in China may provide documents and information relating to securities business activities to overseas regulators when it is under direct investigation or evidence discovery conducted by overseas regulators, which could present significant legal and other obstacles to obtaining information needed for investigations and litigation conducted outside of China.

### ***Adverse changes in political and economic policies of the PRC government could have a material adverse effect on the overall economic growth of China, which could reduce the demand for our products and materially and adversely affect our competitive position.***

Substantially all of our business operations are conducted in China. Accordingly, our business, results of operations, financial condition and prospects are subject to economic, political and legal developments in China. Although the Chinese economy is no longer a planned economy, the PRC government continues to exercise significant control over China's economic growth through direct allocation of resources, monetary and tax policies, and a host of other government policies such as those that encourage or restrict investment in certain industries by foreign investors, control the exchange between RMB and foreign currencies, and regulate the growth of the general or specific market. These government involvements have been instrumental in China's significant growth in the past 30 years. In response to the recent global and Chinese economic downturn, the PRC government has adopted policy measures aimed at stimulating the economic growth in China. If the PRC government's current or future policies fail to help the Chinese economy achieve further growth or if any aspect of the PRC government's policies limits the growth of our industry or otherwise negatively affects our business, our growth rate or strategy, our results of operations could be adversely affected as a result.

### ***Labor laws in the PRC may adversely affect our results of operations.***

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

***Imposition of trade barriers and taxes may reduce our ability to do business internationally, and the resulting loss of revenue could harm our profitability.***

We may experience barriers to conducting business and trade in our targeted markets, specifically South Korea, Japan and Russia, in the form of delayed customs clearances, customs duties and tariffs. In addition, we may be subject to substantial taxes on profits, revenues, assets and payroll, as well as value-added tax. The markets in which we plan to operate may impose onerous and unpredictable duties, tariffs and taxes on our business and products, and there can be no assurance that this will not reduce the level of sales that we achieve in such markets, which would reduce our revenues and profits.

***Under the Enterprise Income Tax Law, we may be classified as a “Resident Enterprise” of China. Such classification will likely result in unfavorable tax consequences to us and our non-PRC stockholders.***

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

On April 22, 2009, the State Administration of Taxation of China, or the SAT, issued the Circular Concerning Relevant Issues Regarding Cognizance of Chinese Investment Controlled Enterprises Incorporated Offshore as Resident Enterprises pursuant to Criteria of de facto Management Bodies, or the SAT Notice 82, further interpreting the application of the EIT Law and its implementation to offshore entities controlled by a Chinese enterprise or enterprise group. Pursuant to the SAT Notice 82, an enterprise incorporated in an offshore jurisdiction and controlled by a Chinese enterprise or enterprise group will be classified as a “non-domestically incorporated resident enterprise” if (i) its senior management in charge of daily operations reside or perform their duties mainly in China; (ii) its financial or personnel decisions are made or approved by bodies or persons in China; (iii) its substantial assets and properties, accounting books, corporate stamps, board and stockholder minutes are kept in China; and (iv) at least half of its directors with voting rights or senior management often resident in China. After SAT Notice 82, the SAT issued a bulletin, known as SAT Bulletin 45, which took effect on September 1, 2011, to provide more guidance on the implementation of SAT Notice 82 and clarify the reporting and filing obligations of such “non-domestically incorporated resident enterprise.” SAT Bulletin 45 provides procedures and administrative details for the determination of resident status and administration on post-determination matters. On January 29, 2014, the SAT issued Announcement of the State Administration of Taxation on Recognizing Resident Enterprises Based on the Criteria of de facto Management Bodies, to further clarify the reporting and filing procedure for the offshore entities controlled by a Chinese enterprise or enterprise group and recognized as a resident enterprise.

Because THL, USCNHK and Euroasia are controlled (although indirectly) by a foreign individual, rather than by a PRC enterprise or a PRC enterprise group, we do not believe that any of THL, USCNHK or Euroasia is a PRC resident enterprise.

However, although both SAT Notice 82 and SAT Bulletin 45 only apply to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreign individuals, the determining criteria set forth in SAT Notice 82 and SAT Bulletin 45 may reflect the SAT’s general position on how the “de facto management body” test should be applied in determining the tax resident status of offshore enterprises, regardless of whether they are controlled by PRC enterprises, PRC enterprise groups or by PRC or foreign individuals. If the PRC tax authorities determine that THL or USCNHK is a PRC resident enterprise for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. First, we may be subject to the enterprise income tax at a rate of 25% on our worldwide taxable income as well as PRC enterprise income tax reporting obligations. In our case, this would mean that income such as non-China source income would be subject to PRC enterprise income tax at a rate of 25%. Currently, we do not have any non-China source income, as we complete our sales, including export sales, in China. Second, under the EIT Law and its implementing rules, dividends paid to us from our PRC subsidiaries would be deemed as “qualified investment income between resident enterprises” and therefore qualify as “tax-exempt income” pursuant to the clause 26 of the EIT Law. Finally, it is possible that future guidance issued with respect to the new “resident enterprise” classification could result in a situation in which the dividends we pay with respect to our common stock, or the gain our non-PRC stockholders may realize from the transfer of our common stock, may be treated as PRC-sourced income and may therefore be subject to a 10% PRC withholding tax. The EIT Law and its implementing regulations are, however, relatively new and ambiguities exist with respect to the interpretation and identification of PRC-sourced income, and the application and assessment of withholding taxes. If we are required under the EIT Law and its implementing regulations to withhold PRC income tax on dividends payable to our non-PRC stockholders, or if non-PRC stockholders are required to pay PRC income tax on gains on the transfer of their common shares, our business could be negatively impacted and the value of your investment may be materially reduced. Further, if we were treated as a “resident enterprise” by PRC tax authorities, we would be subject to taxation in both China and such countries in which we have taxable income, and our PRC tax may not be creditable against such other taxes.

***We may be subject to a significant withholding tax should equity transfers by our non-resident enterprises be determined to have been done without a reasonable business purpose.***

In December 2009, the State Administration of Tax in China issued a circular on strengthening the management of proceeds from equity transfers by non-resident enterprises and requires foreign entities to report indirect sales of resident enterprises. If the existence of the overseas intermediary holding company is disregarded due to lack of reasonable business purpose or substance, gains on such sale are subject to PRC withholding tax. Due to limited guidance and implementation history of the circular, significant judgment is required in determining the existence of a reasonable business purpose by considering multiple factors, such as the form and substance of the arrangement, time of establishment of the foreign entity, relationship between each step of the arrangement, relationship between each component of the arrangement, implementation of the arrangement and the changes in the financial position of all parties involved in the transaction. Although we believe that our transactions during all the periods presented would be determined to have reasonable business purposes, should this not be the case, we would be subject to a significant withholding tax that could materially and adversely impact our financial position, results of operations and cash flows.

***We may be exposed to liabilities under the Foreign Corrupt Practices Act and Chinese anti-corruption law.***

We are subject to the U.S. Foreign Corrupt Practices Act (“FCPA”), and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. persons and issuers as defined by the statute for the purpose of obtaining or retaining business. We are also subject to Chinese anti-corruption laws, which strictly prohibit the payment of bribes to government officials. We have operations, agreements with third parties, and make sales in China, which may experience corruption. Our activities in China create the risk of unauthorized payments or offers of payments by one of the employees, consultants or distributors of our company, because these parties are not always subject to our control. We are in process of implementing an anticorruption program, which prohibits the offering or giving of anything of value to foreign officials, directly or indirectly, for the purpose of obtaining or retaining business. The anticorruption program also requires that clauses mandating compliance with our policy be included in all contracts with foreign sales agents, sales consultants and distributors and that they certify their compliance with our policy annually. It further requires that all hospitality involving promotion of sales to foreign governments and government-owned or controlled entities are in accordance with specified guidelines. In the meantime, we believe to date we have complied in all material respects with the provisions of the FCPA and Chinese anti-corruption law.

However, our existing safeguards and any future improvements may prove to be less than effective, and the employees, consultants or distributors of our Company may engage in conduct for which we might be held responsible. Violations of the FCPA or Chinese anti-corruption law may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition. In addition, the government may seek to hold our Company liable for successor liability FCPA violations committed by companies in which we invest or that we acquire.

***Uncertainties with respect to the PRC legal system could adversely affect us.***

We conduct all of our business through our subsidiaries in China. Our operations in China are governed by PRC laws and regulations. Our PRC subsidiaries are generally subject to laws and regulations applicable to foreign investments in China and, in particular, laws and regulations applicable to wholly foreign-owned enterprises. The PRC legal system is based on statutes. Prior court decisions may be cited for reference but have limited precedential value.

Since 1979, PRC legislation and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China. In particular, because these laws and regulations are relatively new, and because of the limited volume of published decisions and their nonbinding nature, the interpretation and enforcement of these laws and regulations involve uncertainties. In addition, the PRC legal system is based in part on government policies and internal rules (some of which are not published on a timely basis or at all) that may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until sometime after the violation. In addition, any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

Historically, the principal regulation governing foreign ownership of businesses in the PRC was the Guidance Catalogue for Industrial Structure Adjustments (the “Catalogue”). The Catalogue classified various industries into three categories: encouraged, restricted and prohibited. The Catalogue has been replaced by the Special Administrative Measures (Negative List) for Foreign Investment Access (2018), effective July 28, 2018, and amended and restated by the 2020 version, effective July 23, 2020 (the “Negative List”). The Negative List specifies the prohibited and non-prohibited (similar to the restricted in the Guidance Catalogue) industries for foreign investment. For the industries not covered by the Negative List, the foreign investment and the domestic investment have equal access. Foreign investors may not invest in the prohibited industries specified by the Negative List. For the non-prohibited industries on the Negative List, a foreign investor must obtain an investment permit. There are certain requirements on the equity ownership and the executive officers of the foreign invested enterprises. If PRC has certain equity requirements in certain investment fields, no foreign-invested partnership may be established. For example, pursuant to the latest Negative List, the general automobile industry falls in the prohibited industry and the percentage of foreign ownership cannot exceed 50% (except for some categories such as electric vehicle which is not prohibited).

According to the Negative List, our charcoal products and electric vehicle products are not prohibited. Therefore, our proportion of the foreign investment for these products may be up to 100%. However, we may also produce the traditional automobiles which fall in the prohibited industry and are subject to the abovementioned 50% limit. In addition, we are not sure if the Negative List will change in a way that the foreign investment may be limited or prohibited in our business.

Another example is the changes to the Chinese government’s subsidy/rebate support policies to EV manufactures. Those changes have happened on a yearly basis and are at least partially causing delays in our collection of the accounts receivable.

***Governmental control of currency conversion may affect the value of your investment.***

The PRC government imposes controls on the convertibility of the RMB into foreign currencies and, in certain cases, the remittance of currency out of China. We receive substantially all of our revenues in RMB. Under our current corporate structure, our income is primarily derived from dividend payments from our PRC subsidiaries. Shortages in the availability of foreign currency may restrict the ability of our PRC subsidiaries to remit sufficient foreign currency to pay dividends or other payments to us, or otherwise satisfy their foreign currency denominated obligations. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and expenditures from trade-related transactions can be made in foreign currencies without prior approval from the State Administration of Foreign Exchange of the People’s Republic of China (the “SAFE”) by complying with certain procedural requirements. However, approval from appropriate government authorities is required where RMB is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. The PRC government may also at its discretion restrict access in the future to foreign currencies for current account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currency to satisfy our currency demands, we may not be able to pay dividends in foreign currencies to our security-holders.

***We are a holding company and we rely for funding on dividend payments from our subsidiaries, which are subject to restrictions under PRC laws.***

We are a holding company incorporated in the British Virgin Islands, and we operate our core businesses through our subsidiaries in the PRC. Therefore, the availability of funds for us to pay dividends to our shareholders and to service our indebtedness depends upon dividends received from these PRC subsidiaries. If our subsidiaries incur debt or losses, their ability to pay dividends or other distributions to us may be impaired. As a result, our ability to pay dividends and to repay our indebtedness will be restricted. PRC laws require that dividends be paid only out of the after-tax profit of our PRC subsidiaries calculated according to PRC accounting principles, which differ in many aspects from generally accepted accounting principles in other jurisdictions. PRC laws also require enterprises established in the PRC to set aside part of their after-tax profits as statutory reserves. These statutory reserves are not available for distribution as cash dividends. In addition, restrictive covenants in bank credit facilities or other agreements that we or our subsidiaries may enter into in the future may also restrict the ability of our subsidiaries to pay dividends to us. These restrictions on the availability of our funding may impact our ability to pay dividends to our Shareholders and to service our indebtedness.

***Our business may be materially and adversely affected if any of our PRC subsidiaries declare bankruptcy or become subject to a dissolution or liquidation proceeding.***

The Enterprise Bankruptcy Law of the PRC, or the Bankruptcy Law, came into effect on June 1, 2007. The Bankruptcy Law provides that an enterprise will be liquidated if the enterprise fails to settle its debts as and when they fall due and if the enterprise's assets are, or are demonstrably, insufficient to clear such debts.

Our PRC subsidiaries hold certain assets that are important to our business operations. If any of our PRC subsidiaries undergoes a voluntary or involuntary liquidation proceeding, unrelated third-party creditors may claim rights to some or all of these assets, thereby hindering our ability to operate our business, which could materially and adversely affect our business, financial condition and results of operations.

According to the SAFE's Notice of the State Administration of Foreign Exchange on Further Improving and Adjusting Foreign Exchange Administration Policies for Direct Investment, effective on December 17, 2012, and the Provisions for Administration of Foreign Exchange Relating to Inbound Direct Investment by Foreign Investors, effective May 13, 2013, if any of our PRC subsidiaries undergoes a voluntary or involuntary liquidation proceeding, prior approval from the SAFE for remittance of foreign exchange to our shareholders abroad is no longer required, but we still need to conduct a registration process with the SAFE local branch. It is not clear whether "registration" is a mere formality or involves the kind of substantive review process undertaken by SAFE and its relevant branches in the past.

***Fluctuations in exchange rates could adversely affect our business and the value of our securities.***

Changes in the value of the RMB against the U.S. dollar, Euro and other foreign currencies are affected by, among other things, changes in China's political and economic conditions. Any significant revaluation of the RMB may have a material adverse effect on our revenues and financial condition, and the value of, and any dividends payable on our shares in U.S. dollar terms. For example, to the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount that we receive from the conversion. Conversely, if we decide to convert our RMB into U.S. dollars for the purpose of paying dividends on our common shares or for other business purposes, appreciation of the U.S. dollar against the RMB would have a negative effect on the U.S. dollar amount available to us. In addition, fluctuations of the RMB against other currencies may increase or decrease the cost of imports and exports, and thus affect the price-competitiveness of our products against products of foreign manufacturers or products relying on foreign inputs.

Since July 2005, the RMB is no longer pegged to the U.S. dollar. Although the People's Bank of China regularly intervenes in the foreign exchange market to prevent significant short-term fluctuations in the exchange rate, the RMB may appreciate or depreciate significantly in value against the U.S. dollar in the medium to long term. Moreover, it is possible that in the future PRC authorities may lift restrictions on fluctuations in the RMB exchange rate and lessen intervention in the foreign exchange market.

Our trading business relies heavily on exchange rate fluctuations. We seek to match suppliers and potential purchasers, which may be located in different geographic areas, and to lock in the exchange rates in order to ensure an appropriate profit margin on such sales. To the extent we are unable to obtain favorable exchange rates, we may find lower profits or losses than we expect.

We reflect the impact of currency translation adjustments in our financial statements under the heading “accumulated other comprehensive income (loss).” For years ended December 31, 2020, 2019 and 2018, we had adjustments of \$5,892,311, \$(5,494,731) and \$(949,689), respectively, for foreign currency translations. Very limited hedging transactions are available in China to reduce our exposure to exchange rate fluctuations. To date, we have not entered into any hedging transactions. While we may enter into hedging transactions in the future, the availability and effectiveness of these transactions may be limited, and we may not be able to successfully hedge our exposure at all. In addition, our foreign currency exchange losses may be magnified by PRC exchange control regulations that restrict our ability to convert RMB into foreign currencies.

***If we become directly subject to the recent scrutiny, criticism and negative publicity involving U.S.-listed Chinese companies, we may have to expend significant resources to investigate and resolve the matter which could harm our business operations and our reputation and could result in a loss of your investment in our stock, especially if such matter cannot be addressed and resolved favorably.***

In recent years, U.S. public companies that have substantially all of their operations in China have been the subject of intense scrutiny, criticism and negative publicity by investors, financial commentators and regulatory agencies, such as the SEC. Much of the scrutiny, criticism and negative publicity has centered around financial and accounting irregularities, a lack of effective internal controls over financial accounting, inadequate corporate governance policies or a lack of adherence thereto and, in many cases, allegations of fraud. As a result of the scrutiny, criticism and negative publicity, the publicly traded stock of many U.S. listed Chinese companies has sharply decreased in value and, in some cases, has become virtually worthless. Many of these companies are now subject to shareholder lawsuits and the SEC enforcement actions and are conducting internal and external investigations into the allegations. It is not clear what effect this sector-wide scrutiny, criticism and negative publicity will have on our company and our business. If we become the subject of any unfavorable allegations, whether such allegations are proven to be true or untrue, we will have to expend significant resources to investigate such allegations and/or defend the Company. This situation may be a major distraction to our management. If such allegations are not proven to be groundless, our company and business operations will be severely hampered and your investment in our stock could be rendered worthless.

***PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident shareholders to penalties and limit our ability to inject capital into our PRC subsidiary, limit our PRC subsidiary’s ability to distribute profits to us, or otherwise adversely affect us.***

On October 21, 2005, the SAFE issued the Notice on Issues Relating to the Administration of Foreign Exchange in Fund-raising and Return Investment Activities of Domestic Residents Conducted via Offshore Special Purpose Companies, or Notice 75, which became effective as of November 1, 2005. According to Notice 75, prior registration with the local SAFE branch is required for PRC residents to establish or to control an offshore company for the purposes of financing such offshore company with assets or equity interests in an onshore enterprise located in the PRC, or an offshore special purpose company. An amendment to registration or filing with the local SAFE branch by such PRC resident is also required for the injection of equity interests or assets of an onshore enterprise in the offshore special purpose company or overseas funds raised by such offshore company, or any other material change involving a change in the capital of the offshore special purpose company. Moreover, Notice 75 applies retroactively. As a result, PRC residents who have established or acquired control of offshore special purpose companies that have made onshore investments in the PRC in the past are required to have completed the relevant registration procedures with the local SAFE branch by March 31, 2006.

To further clarify the implementation of Circular 75, the SAFE issued Circular 19 on May 20, 2011. Under Circular 19, PRC subsidiaries of an offshore special purpose company are required to coordinate and supervise the filing of SAFE registrations by the offshore holding company’s shareholders or beneficial owners who are PRC residents in a timely manner. However, on May 11, 2013, Circular 19 was annulled by Circular 21, issued by the SAFE. Circular 21 has not yet given clear guidance as to how to complete the relevant registration procedures with the local SAFE branch.

While Ms. Yefang Zhang, a citizen of the Saint Lucia, is not required to register with the SAFE, it is not clear, especially with the annulment of Circular 19 and the absence of replacement guidance, whether Mr. Zhengyu Wang, a PRC resident who presently owns no shares of our company needs to register with the SAFE. In the event Mr. Zhengyu Wang receives any shares in the future and is a PRC resident at such time, he would be required to register with the SAFE. We cannot provide any assurances that such registration will be completed in a timely manner, or at all. As advised by our PRC legal counsel, if any future failure by any of our shareholders who are PRC residents, to comply with relevant requirements under this regulation could subject such shareholders and/or our PRC subsidiaries to fines and legal sanctions and may also limit our ability to contribute additional capital into our PRC subsidiaries or to provide loans to our PRC subsidiaries, limit our PRC subsidiaries' ability to distribute dividends to our company, or otherwise adversely affect our business.

***PRC regulation of loans and direct investment by offshore holding companies to PRC entities may delay or prevent us from using the proceeds from the offerings of any securities to make loans or additional capital contributions to our PRC operating subsidiaries.***

As an offshore holding company, our ability to make loans or additional capital contributions to our PRC operating subsidiaries is subject to PRC regulations and approvals. These regulations and approvals may delay or prevent us from using the proceeds we received in the past or will receive in the future from the offerings of securities to make loans or additional capital contributions to our PRC operating subsidiaries, and impair our ability to fund and expand our business which may adversely affect our business, financial condition and result of operations.

For example, the SAFE promulgated the Circular on the Relevant Operating Issues concerning Administration Improvement of Payment and Settlement of Foreign Currency Capital of Foreign Invested Enterprises, or Circular 142, on August 29, 2008. Under Circular 142, registered capital of a foreign invested company settled in RMB converted from foreign currencies may only be used within the business scope approved by the applicable governmental authority and may not be used for equity investments in the PRC. In addition, foreign invested companies may not change how they use such capital without the SAFE's approval, and may not in any case use such capital to repay RMB loans if they have not used the proceeds of such loans. Furthermore, the SAFE promulgated a circular on November 9, 2010, or Circular 59, which requires the authenticity of settlement of net proceeds from offshore offerings to be closely examined and the net proceeds to be settled in the manner described in the offering documents. In addition, to strengthen Circular 142, on November 9, 2011, the SAFE promulgated the Circular on Further Clarifying and Regulating Relevant Issues Concerning the Administration of Foreign Exchange under Capital Account, or Circular 45, which prohibits a foreign invested company from converting its registered capital in foreign exchange currency into RMB for the purpose of making domestic equity investments, granting entrusted loans, repaying intercompany loans, and repaying bank loans that have been transferred to a third party. Circular 142, Circular 59 and Circular 45 may significantly limit our ability to transfer the net proceeds from offerings of our securities or any future offering to our PRC subsidiaries and convert the net proceeds into RMB, which may adversely affect our liquidity and our ability to fund and expand our business in the PRC.

#### **Risks Related to Our Corporate Structure and Operation**

***We incur additional costs as a public company, which could negatively impact our net income and liquidity.***

As a public company, we incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, Sarbanes-Oxley and rules and regulations implemented by the SEC and The Nasdaq Capital Market (the "Nasdaq") require significantly heightened corporate governance practices for public companies. We expect that these rules and regulations to increase our legal, accounting and financial compliance costs and make many corporate activities more time-consuming and costly.

We do not expect to incur materially greater costs as a public company than those incurred by similarly sized U.S. public companies. If we fail to comply with these rules and regulations, we could become the subject of a governmental enforcement action, investors may lose confidence in us and the market price of our common shares could decline.



***We have guaranteed the bank loan and share repurchase obligation of related parties and share purchase obligation of an unrelated party; if any such party fails to pay the bank loan or the share purchase obligation, our property may be subject to foreclosure or enforcement.***

In July 2020, we provided a guaranty on a line of credit on behalf of a related party, Zhejiang Forasen Food Co., Ltd. (“Forasen Food”). Forasen Food’s outstanding line of credit of RMB 10 million (approximately \$1.5 million) will expire on July 8, 2023.

In connection with this guaranty, we pledged our building and land’s rights as collateral for Forasen Food’s loans.

At the time we offered these guarantees, we believed Forasen Food would be able to repay (and would in fact repay) such loans and bank acceptance notes. Forasen Food, like our Company, is controlled by Ms. Yefang Zhang. For this reason, we are aware that Forasen Food has historically had a strong credit history with the banks with which it does business.

We also guaranteed the share repurchase obligation of a related party in 2018 and that guaranty has been replaced by a guaranty for the share purchase obligation of an unrelated party in 2019. In May 2018, our wholly owned subsidiary Zhejiang Tantech Bamboo Technology Co., Ltd. (“Tantech Bamboo”) signed an agreement with other co-guarantors to jointly and severally guarantee the share repurchase obligation of Forasen Group Co., Ltd. (“Forasen Group”), in favor of an unrelated third party. Such third party filed a complaint to claim a payment of RMB 29.50 million against Forasen Group, together with the guarantors on January 9, 2019. On August 30, 2019, the court issued a settlement by which another unrelated third party agreed to purchase the shares from the plaintiff by paying RMB 90 million, and all the co-guarantors including Tantech Bamboo jointly and severally guarantee the payment obligation regarding the RMB 90 million and other possible fees, for three years from June 30, 2020, the due date of the share purchase payment obligation. The other unrelated third party has paid approximately \$5.3 million (RMB 34.86 million) and approximately \$8.5 million (RMB 55.14 million).

Accordingly, in June 2020, Lishui Jiuanju Commercial Trade Co., Ltd. (“LJC”), another related party, issued to Tantech Bamboo an anti-guaranty guaranty to guarantee Tantech Bamboo’s potential payment obligation, and a bank statement of RMB 70 million. Therefore, our PRC counsel believes Tantech Bamboo’s legal risk has been relieved to some extent. The Company believes that it is more likely than not that LJC will perform its guaranty obligation and Tantech Bamboo will not need to make the payment.

***Entities controlled by our employees, officers and/or directors control a significant percentage of our common shares, decreasing your influence on shareholder decisions.***

Entities controlled by our employees, officers and/or directors, in the aggregate, beneficially own approximately 31.5% of our outstanding shares. As a result, our employees, officers and directors possess substantial ability to impact our management and affairs and the outcome of matters submitted to shareholders for approval. These shareholders, acting individually or as a group, could exert control and substantial influence over matters such as electing directors and approving mergers or other business combination transactions. This concentration of ownership and voting power may also discourage, delay or prevent a change in control of our company, which could deprive our shareholders of an opportunity to receive a premium for their shares as part of a sale of our company and might reduce the price of our common shares. These actions may be taken even if they are opposed by our other shareholders. See “ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES – E. Share Ownership.”

***The obligation to disclose information publicly may put us at a disadvantage to competitors that are private companies.***

As a publicly listed company, we are required to file periodic reports with the SEC upon the occurrence of matters that are material to our company and shareholders. In some cases, we need to disclose material agreements or results of financial operations that we would not be required to disclose if we were a private company. Our competitors may have access to this information, which would otherwise be confidential. This may give them advantages in competing with our company. Similarly, as a U.S.-listed public company, we are governed by U.S. laws that our competitors, which are mostly private Chinese companies, are not required to follow. To the extent compliance with U.S. laws increases our expenses or decreases our competitiveness against such companies, our public listing could affect our results of operations.

***We are a “foreign private issuer,” and our disclosure obligations differ from those of U.S. domestic reporting companies. As a result, we may not provide you the same information as U.S. domestic reporting companies or we may provide information at different times, which may make it more difficult for you to evaluate our performance and prospects.***

We are a foreign private issuer and, as a result, we are not subject to the same requirements as U.S. domestic issuers. Under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), we are subject to reporting obligations that, to some extent, are more lenient and less frequent than those of U.S. domestic reporting companies. For example, we are not required to issue quarterly reports or proxy statements. We are not required to disclose detailed individual executive compensation information. Furthermore, our directors and executive officers are not required to report equity holdings under Section 16 of the Exchange Act and are not subject to the insider short-swing profit disclosure and recovery regime.

As a foreign private issuer, we will also be exempt from the requirements of Regulation FD (Fair Disclosure) which, generally, are meant to ensure that select groups of investors are not privy to specific information about an issuer before other investors. However, we will still be subject to the anti-fraud and anti-manipulation rules of the SEC, such as Rule 10b-5 under the Exchange Act. Since many of the disclosure obligations imposed on us as a foreign private issuer differ from those imposed on U.S. domestic reporting companies, you should not expect to receive the same information about us and at the same time as the information provided by U.S. domestic reporting companies.

***We may lose our foreign private issuer status in the future, which could result in significant additional costs and expenses.***

The determination of our status as a foreign private issuer is made annually on the last business day of our most recently completed second fiscal quarter and, accordingly, the next determination will be made with respect to us on or after June 30, 2021. We would lose our foreign private issuer status if (1) a majority of our outstanding voting securities are directly or indirectly held of record by U.S. residents, and (2) a majority of our shareholders or a majority of our directors or management are U.S. citizens or residents, a majority of our assets are located in the United States, or our business is administered principally in the United States. If we were to lose our foreign private issuer status, the regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly higher. We may also be required to modify certain of our policies to comply with corporate governance practices associated with U.S. domestic issuers, which would involve additional costs.

***Our directors’ and executive officers’ other business activities may pose conflicts of interest.***

Our directors and executive officers have other business interests outside the company that could potentially give rise to conflicts of interest. For example, our Chairman, Zhengyu Wang, and his wife and our director, Yefang Zhang, collectively own all of Forasen Group. The Forasen Group’s primary business areas are investment, rubber trading, foodstuff production, and financial management. We also have historically engaged in rubber trading. Although we have significantly reduced our trading in rubber at Tantech to immaterial levels, both businesses were for a time trading similar products. Mr. Wang and Ms. Zhang work with the Forasen Group’s rubber trading department and other advisors to locate opportunities that meet the Forasen Group’s investment criteria. As Tantech has significantly reduced its rubber trading activities, they anticipate that any rubber trading opportunities would be presented to and considered by the Forasen Group rather than by Tantech.

Yefang Zhang is also the Chairman and Chief Executive Officer of Farmmi, Inc. (“Farmmi”), another Nasdaq listed company, and Zhengyu Wang is a director of Farmmi. Mr. Wang has historically devoted approximately 15% of his time to matters concerning Farmmi, approximately 15% of his time to matters for Tantech, and approximately 70% of his time to matters concerning Forasen Group. As Ms. Zhang and Mr. Wang devote considerable time and efforts to Farmmi and Forasen Group, these sort of business activities could both distract them from focusing on Tantech and pose an issue of time commitment.

Ms. Zhang also indirectly controls 22.04% of CN Energy Group, Inc. (“CN Energy”), another Nasdaq-listed company. CN Energy is a manufacturer and supplier of wood-based activated carbon and a producer of biomass electricity. Neither Ms. Zhang nor Mr. Wang currently holds any position at CN Energy.

Mr. Wang and Ms. Zhang signed a Non-Competition Agreement with our company, Farmmi and CN Energy which provides that Mr. Wang and Ms. Zhang shall not vote in favor or otherwise cause Farmmi or CN Energy to engage in the business that we conduct. Although, because of this non-competition agreement, we do not believe that there are business activities of Mr. Wang and Ms. Zhang that will compete directly with our business operations, it is possible that the enforceability of this agreement may be challenged and a conflict of interest may occur.

In addition, we have permitted Forasen Group to occupy and use 6,415.32 square meters of our Tianning Street real property as office and factory facilities. We have not historically charged Forasen Group for such usage, but plan to do so in the near future. Although we believe we engage in sound corporate governance practices, there remains the risk that our company may be negatively affected by our directors’ or executive officers’ conflicts of interest.

***An insufficient amount of insurance could expose us to significant costs and business disruption.***

While we have purchased insurance to cover our certain assets and property of our business, the amounts and scope of coverage could leave our business inadequately protected from loss. If we were to incur substantial losses or liabilities due to fire, explosions, floods, other natural disasters or accidents or business interruption, our results of operations could be materially and adversely affected.

**Risks Related to Ownership of Our Common Shares**

***A recent joint statement by the SEC and the Public Company Accounting Oversight Board (United States), or the “PCAOB,” proposed rule changes submitted by The Nasdaq Stock Market LLC (“NASDAQ”), and an act passed by the U.S. Senate all call for additional and more stringent criteria to be applied to emerging market companies upon assessing the qualification of their auditors, especially the non-U.S. auditors who are not inspected by the PCAOB. These developments could add uncertainties to our continued listing on NASDAQ in the future.***

On April 21, 2020, the SEC and PCAOB released a joint statement highlighting the risks associated with investing in companies based in or having substantial operations in emerging markets including China. The joint statement emphasized the risks associated with lack of access for the PCAOB to inspect auditors and audit work papers in China and higher risks of fraud in emerging markets.

On May 18, 2020, NASDAQ filed three proposals with the SEC to (i) apply a minimum offering size requirement for companies primarily operating in a “Restrictive Market,” (ii) adopt a new requirement relating to the qualification of management or the board of directors for Restrictive Market companies, and (iii) apply additional and more stringent criteria to an applicant or listed company based on the qualifications of the company’s auditor.

On May 20, 2020, the U.S. Senate passed an act requiring a foreign company to certify it is not owned or manipulated by a foreign government if the PCAOB is unable to audit specified reports because the company uses a foreign auditor not subject to PCAOB inspection. If the PCAOB is unable to inspect the company’s auditor for three consecutive years, the issuer’s securities are prohibited to trade on a national exchange.

On June 4, 2020, the U.S. President issued a memorandum ordering the President’s working group on financial markets to submit a report to the President within 60 days of the date of the memorandum that should include recommendations for actions that can be taken by the executive branch and by the SEC or PCAOB to enforce U.S. regulatory requirements on Chinese companies listed on U.S. stock exchanges and their audit firms. However, it remains unclear what further actions, if any, the U.S. executive branch, the SEC, and PCAOB will take to address the problem.

The lack of access to the PCAOB inspection in China prevents the PCAOB from fully evaluating audits and quality control procedures of the auditors based in China. As a result, investors may be deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of these accounting firms’ audit procedures or quality control procedures as compared to auditors outside of China that are subject to the PCAOB inspections, which could cause investors and potential investors in our Ordinary Shares to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our auditor, Prager Metis CPAs, LLC, is an independent registered public accounting firm with the PCAOB, and as an auditor of publicly traded companies in the U.S., is subject to laws in the U.S. pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor has been inspected by the PCAOB on a regular basis. However, the above recent developments have added uncertainties to our continued listing on NASDAQ in the future, to which NASDAQ may apply additional and more stringent criteria after considering the effectiveness of our auditor’s audit and quality control procedures, adequacy of personnel and training, sufficiency of resources, geographic reach, and experience as related to our audit.

***If we continue to be unable to implement and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common shares may decline.***

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. In addition, we are required to furnish a report by management on the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act. If we continue to identify material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner or assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting when required, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common shares could be negatively affected, and we could become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, which could require additional financial and management resources.

***The requirements of being a public company may strain our resources and divert management's attention.***

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the securities exchange on which we list, and other applicable securities rules and regulations. Despite recent reforms made possible by the JOBS Act, compliance with these rules and regulations will nonetheless increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources, particularly as we have ceased to be an "emerging growth company." The Exchange Act requires, among other things, that we file annual, quarterly, and current reports with respect to our business and operating results.

As a result of disclosure of information in this annual report and in filings required of a public company, our business and financial condition become more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and operating results could be harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and adversely affect our business, brand and reputation and results of operations.

We also expect that being a public company and these rules and regulations make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

***The market price of our common shares may be volatile or may decline regardless of our operating performance, and you may not be able to resell your shares at or above the price you paid.***

The trading prices for our common shares have fluctuated since we first listed our common shares. Since our common shares became listed on the Nasdaq on March 24, 2015, the trading price of our common shares has ranged from \$0.81 to \$33.97 per common share, and the last reported trading price on April 21, 2021 was \$1.32 per common share. The market price of our common shares may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated fluctuations in our revenue and other operating results;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;

- actions of securities analysts who initiate or maintain coverage of us, changes in financial estimates by any securities analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- announcements by us or our competitors of significant products or features, technical innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- price and volume fluctuations in the overall stock market, including as a result of trends in the economy as a whole;
- lawsuits threatened or filed against us; and
- other events or factors, including those resulting from war or incidents of terrorism, or responses to these events.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have filed securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business, and adversely affect our business.

***We do not intend to pay dividends for the foreseeable future.***

We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or pay any dividends in the foreseeable future. As a result, you may only receive a return on your investment in our common shares if the market price of our common shares increases.

***We incur significant costs as a result of being a public company.***

As a public company, we incur legal, accounting and other expenses that we did not incur as a private company. For example, we must now engage U.S. securities law counsel and U.S. auditors that we did not require as a private company, and we have annual payments for listing on Nasdaq. In addition, the Sarbanes-Oxley Act, as well as new rules subsequently implemented by the SEC and NASDAQ, have required changes in corporate governance practices of public companies. We expect these new rules and regulations to increase our legal, accounting and financial compliance costs and to make certain corporate activities more time-consuming and costly. In addition, we incur additional costs associated with our public company reporting requirements. While it is impossible to determine the amounts of such expenses, we expect that we incur expenses of between \$500,000 and \$1 million per year that we did not experience as a private company.

***U.S. tax authorities could treat us as a “passive foreign investment company,” which could have adverse U.S. federal income tax consequences to U.S. shareholders.***

A non-U.S. entity treated as a corporation for U.S. federal income tax purposes will be treated as a “passive foreign investment company,” or a PFIC, for any taxable year for which either (i) at least 75% of its gross income consists of certain types of “passive income” or (ii) at least 50% of the average value of the corporation’s assets produce, or are held for the production of, those types of passive income. For purposes of these tests, passive income includes rents and royalties (other than rents and royalties that are received from unrelated parties in connection with the active conduct of a trade or business) and does not include income derived from the performance of services.

If we are treated as a PFIC, U.S. Holders would ordinarily be able to mitigate certain of the negative tax consequences if they are able to make: (i) a timely qualified electing fund (“QEF”) election; (ii) a protective QEF election; or (iii) a mark to market election with respect to the first taxable year in which we are considered a PFIC during the U.S. Holder’s holding period in its shares.

We are not committing to provide our U.S. Holders with the information required for making a QEF election or protective QEF election. If we fail to provide such information, a QEF election with respect to such entity generally will not be available. In such event, the rules described in the next paragraph generally will apply.

If we are treated as a PFIC, a U.S. Holder that does not make a QEF election generally will be subject to a special tax and an interest charge upon the sale of its shares or receipt of an “excess distribution” with respect to its shares. A U.S. Holder will be treated as receiving an “excess distribution” if the amount of the distributions received by the U.S. Holder in any taxable year is more than 125% of the average annual distributions paid by the Company with respect to its shares during the three preceding taxable years (or the period in which the U.S. Holder held such shares if shorter).

In addition, a portion of any gain recognized by a U.S. Holder upon the sale of our shares may be recharacterized as ordinary income. Further, any dividends received from the Company, if the Company is treated as a PFIC, will not constitute qualified dividend income and will not be eligible for the reduced 20% rate of tax even if such rate would be available otherwise. If a U.S. Holder holds our shares during any taxable year in which we are treated as PFICs, such shares will generally be treated as stock in a PFIC for all subsequent years.

***We are subject to liability risks stemming from our foreign status, which could make it more difficult for investors to sue or enforce judgments against our company.***

Our operations and assets are located in the PRC. In addition, most of our executive officers and directors are non-residents of the U.S., and substantially all the assets of such persons are located outside the U.S. As a result, it could be difficult for investors to effect service of process in the U.S., or to enforce a judgment obtained in the U.S. against us or any of these persons.

In addition, British Virgin Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States. The circumstances in which any such action may be brought, and the procedures and defenses that may be available in respect to any such action, may result in the rights of shareholders of a British Virgin Islands company being more limited than those of shareholders of a company organized in the United States. Accordingly, shareholders may have fewer alternatives available to them if they believe that corporate wrongdoing has occurred. The British Virgin Islands courts are also unlikely to recognize or enforce against us judgments of courts in the United States based on certain liability provisions of U.S. securities law; and to impose liabilities against us, in original actions brought in the British Virgin Islands, based on certain liability provisions of U.S. securities laws that are penal in nature. There is no statutory recognition in the British Virgin Islands of judgments obtained in the United States, although the courts of the British Virgin Islands will generally recognize and enforce the non-penal judgment of a foreign court of competent jurisdiction without retrial on the merits. This means that even if shareholders were to sue us successfully, they may not be able to recover anything to make up for the losses suffered.

Lastly, under the law of the British Virgin Islands, there is little statutory law for the protection of minority shareholders other than the provisions of the BVI Act dealing with shareholder remedies. The principal protection under statutory law is that shareholders may bring an action to enforce the constituent documents of the corporation, our amended and restated memorandum and articles of association. Shareholders are entitled to have the affairs of the company conducted in accordance with the general law and the articles and memorandum.

There are common law rights for the protection of shareholders that may be invoked, largely dependent on English company law, since the common law of the British Virgin Islands for business companies is limited. Under the general rule pursuant to English company law known as the rule in *Foss v. Harbottle*, a court will generally refuse to interfere with the management of a company at the insistence of a minority of its shareholders who express dissatisfaction with the conduct of the company’s affairs by the majority or the board of directors. However, every shareholder is entitled to have the affairs of the company conducted properly according to law and the constituent documents of the corporation. As such, if those who control the company have persistently disregarded the requirements of company law or the provisions of the company’s memorandum and articles of association, then the courts will grant relief. Generally, the areas in which the courts will intervene are the following: (1) an act complained of which is outside the scope of the authorized business or is illegal or not capable of ratification by the majority; (2) acts that constitute fraud on the minority where the wrongdoers control the company; (3) acts that infringe on the personal rights of the shareholders, such as the right to vote; and (4) where the company has not complied with provisions requiring approval of a special or extraordinary majority of shareholders, which are more limited than the rights afforded minority shareholders under the laws of many states in the United States.

## ITEM 4. INFORMATION ON THE COMPANY

### A. History and Development of the Company

Tantech Bamboo was established in October 2002 under the trading name “Lishui Zhonglin High Tech Co., Ltd.” by its incumbent owner. Lishui Forasen Food Co. Ltd. was established in January 1998. In April 2003, it changed its name to Lishui Forasen Green Industry Group, later renamed Forasen Group Co. Ltd. (“Forasen Group”). In May 2003, 60% of THL’s shares were acquired by the Forasen Group. A second subsidiary, Zhejiang Tantech Bamboo Charcoal Co., Ltd. (“Tantech Charcoal”), was acquired in September 2006 to manage the Forasen Group’s export business. In September 2008 a third subsidiary, Zhejiang Tantech Energy Technology Co., Ltd. (“Tantech Energy”), was established to research and develop bamboo charcoals application as a carbon component for EDLCs. On December 14, 2017, the Company entered into a sale agreement and related agreements to transfer its EDLC carbon business (including intellectual property rights and equipment) to Zhejiang Apeikesi Energy Co., Ltd. (the “Buyer”), a PRC start-up company controlled by Dr. Zaihua Chen, the Company’s then Chief Technology Officer. Following the renaming of the Forasen Group to its current name, 95% of Tantech Bamboo’s shares were acquired by USCNHK, a Hong Kong registered company, in December 2010. In May and December 2016, Tantech Holdings (Lishui) Co., Ltd., formerly Zhejiang Tantech Bamboo Technology Co., Ltd., a USCNHK’s wholly owned subsidiary, acquired 100% of Tantech Bamboo’s shares from USCNHK and five individuals.

#### Historical Timeline

Below is a brief timeline of key dates in our Company’s history since its formation.

- January 1998: Lishui Forasen Food Co. Ltd. is established.
- September 2001: Tantech Charcoal is established.
- October 2002: Tantech Bamboo is established as “Lishui Zhonglin High Tech Co., Ltd.” with registered capital of RMB 3.15 million.
- April 2003: Lishui Forasen Food Co. Ltd. is renamed “Lishui Forasen Green Industry Group” (the former name of Forasen Group Co., Ltd.).
- May 2003: Forasen Group acquires 60% of Tantech Bamboo.
- December 2005: (1) Tantech Bamboo reorganizes its structure (a) from a limited company to a shareholder company and (b) to increase registered capital to RMB 21 million, resulting in a decrease of Forasen Group’s interest to 41.24%; (2) Tantech Bamboo is renamed “Zhejiang Tantech Bamboo Technology Co., Ltd.”; (3) Zhengyu Wang becomes legal representative of Tantech Bamboo.
- September 2006: Tantech Bamboo acquires Tantech Charcoal by transferring shares from Forasen Group and natural shareholders to Tantech Bamboo. As a subsidiary, Tantech Charcoal’s business scope is exporting Forasen Group’s products to a multitude of countries worldwide.
- September 2007: Forasen Group’s interest in Tantech Bamboo increases to 44.25%.
- January 2008: Tantech Bamboo increases its registered capital to RMB 27 million, decreasing Forasen Group’s interest to 34.41%.
- July 2008 through April 2009: Several shareholders of Tantech Bamboo transfer their interests to Forasen Group, increasing its interest in Tantech Bamboo to 51.45%.
- September 2008: Tantech Energy is established and operates as subsidiary of Tantech Bamboo.

- October 2008: USCNHK is established as “Raymond & O/B Raysuccess Co., Limited”.
- October 2009: Lishui Forasen Green Industry Group is renamed “Forasen Group Co. Ltd.”.
- November 2010: THL is established as “Sinoport Enterprises Limited.”
- December 2010: (1) USCNHK is renamed “USCNHK Group Limited”; (2) Tantech Bamboo increases its registered capital to RMB 80 million, increasing Forasen Group’s interest to 95%; (3) Forasen Group transfers all of its interest in Tantech Bamboo to USCNHK.
- April 2013: THL is renamed “Tantech Holdings Ltd”.
- March 2015: THL completed an initial public offering of its common shares and listing on Nasdaq.
- April 2015: THL established a subsidiary Euroasia.
- July 2015: Euroasia established a subsidiary Jiamu.
- December 2015: Hangzhou Tanbo Technology Co., Ltd. was established.
- February 2016: Jiamu established a subsidiary Jiyi.
- April 2016: USCNHK established a new subsidiary as “Zhejiang Tantech Bamboo Technology Co., Ltd.”
- May 2016: USCNHK transferred 95% of Tantech Bamboo’s shares it owned to Zhejiang Tantech Bamboo Technology Co., Ltd.
- December 2016: Zhejiang Tantech Bamboo Technology Co., Ltd acquired the remaining 5% of Tantech Bamboo’s shares.
- May 2017: Zhejiang Tantech Bamboo Technology Co., Ltd changes its name to Lishui Tantech Energy Technology Co., Ltd, which in turn changed its name in July 2017 to Tantech Holdings (Lishui) Co., Ltd.
- On July 12, 2017, the Company acquired a 70% equity interest of Shangchi Automobile, formerly Suzhou E-Motors. The 70% equity interest comprises a 19% equity interest owned directly through Jiyi and a 51% equity interest owned through a series of contractual agreement with the owners of Wangbo.
- October 2017: Euroasia established a subsidiary Euroasia New Energy Automotive (Jiangsu) Co., Ltd.
- On December 14, 2017, the Company entered into a sale agreement and related agreements to transfer its EDLC carbon business (including intellectual property rights and equipment) to Zhejiang Apeikesi Energy Co., Ltd., a PRC start-up company controlled by Dr. Zaihua Chen, our former Chief Technology Officer.
- On January 10, 2018, the Company signed a share purchase agreement with Shanghai Shicai Minerals Co., Ltd. (“Shanghai Shicai”) to acquire all of the shares of Lishui Xincai Industrial Co., Ltd. (“Lishui XinCai”), a wholly-owned subsidiary of Shanghai Shicai, at a price of approximately \$18.2 million (or RMB 120 million). Lishui Xincai owns 18% of the equity interests in Libo Haokun, so we indirectly hold a 18% stake in Libo Haokun.
- On October 24, 2018, the Company closed Khorgas Tantech Business Service Co., Ltd. and Khorgas Yabo Software Co., Ltd.
- On November 5, 2018, the Company closed Zhejiang Tantech Tourism Development Co., Ltd.

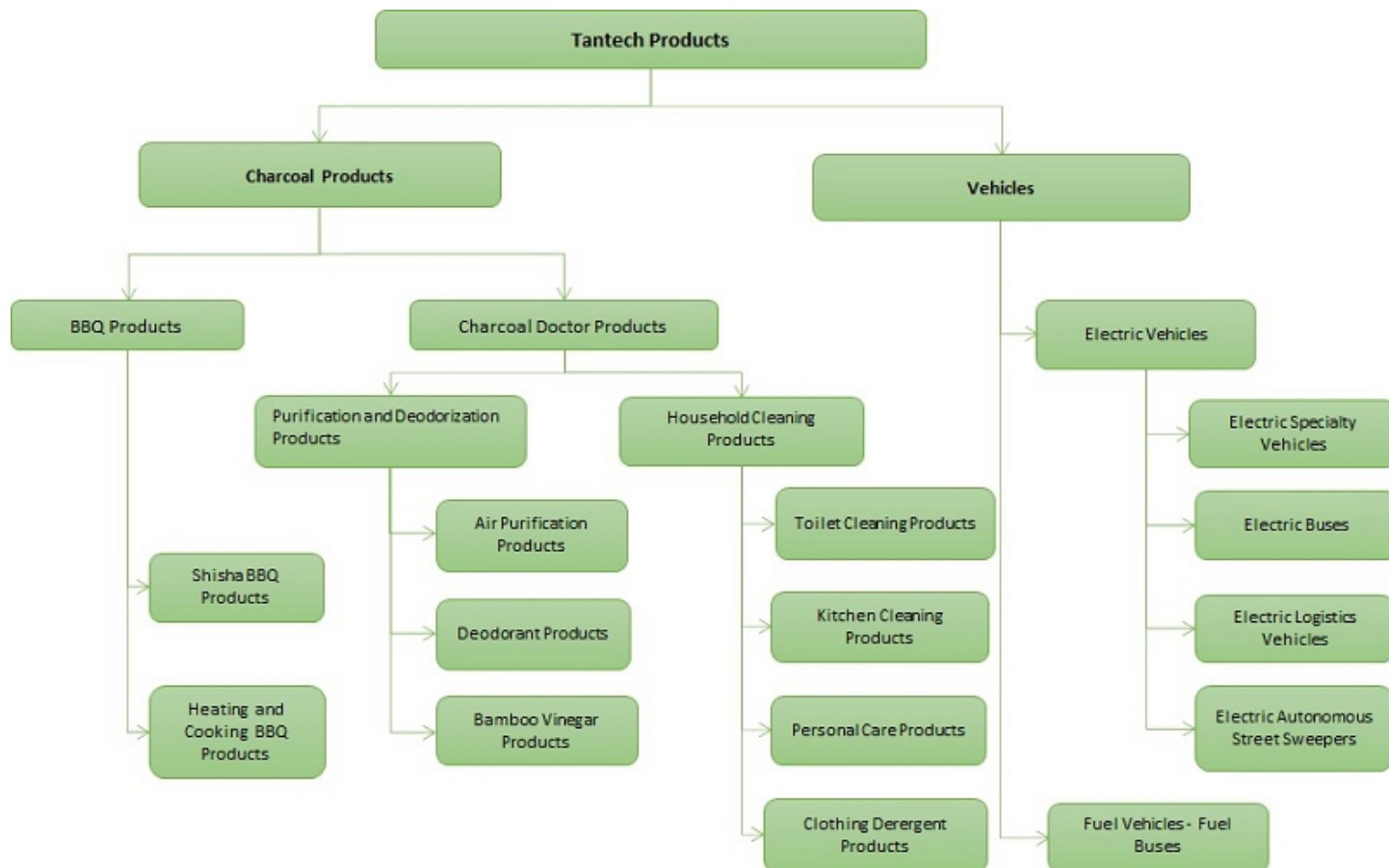


- On November 12, 2018, the Company closed Zhejiang Babiku Charcoal Co., Ltd.
- On November 13, 2018, the Company established Shenzhen Yimao New Energy Sales Co., Ltd., a sales subsidiary through Shangchi Automobile (formerly known as Suzhou E-Motors).
- On June 26, 2019, the Company entered a share transfer agreement to sell all of its shares in its wholly-owned subsidiary Tantech Energy to an unrelated third party.
- On November 29, 2019, the Company signed an investment agreement with Jingning Zhonggang Mining Co., Ltd. (“Jingning Zhonggang”) to acquire 18% of the equity interest of Fuquan Chengwang, a wholly-owned subsidiary of Jingning Zhonggang, at a price of RMB 46.323 million, or \$6.48 million.
- On December 31, 2019, the Company’s wholly owned subsidiary Tantech Bamboo transferred all of its shares in its wholly-owned subsidiary Tantech Charcoal to Lishui Xincai, the Company’s another wholly owned subsidiary Lishui Xincai.
- In January 2020, Lishui Jikang Energy Technology Co., Ltd. was established.
- In November 2020, Lishui Smart New Energy Automobile Co., Ltd. (“Lishui Smart”) and Zhejiang Shangchi New Energy Automobile Co., Ltd. (“Zhejiang Shangchi”) were established.
- In November 2020, the Company launched driverless and autonomous street sweepers.
- In November 2020, the Company closed an offering with institutional investors, raising approximately \$10 million in gross proceeds, before deducting placement agent fees and other standard offering expenses, from the sale of 6,060,608 of its common shares, priced at \$1.65 per share, registered warrants to purchase up to 2,754,820 common shares in a registered direct offering, and unregistered warrants to purchase up to 3,305,788 common shares in a concurrent private placement.

## **B. Business Overview**

We develop and manufacture bamboo-based charcoal products for industrial energy applications and household cooking, heating, purification, agricultural and cleaning uses. We have grown over the past decade to become a pioneer in charcoal products industry made from carbonized bamboo. We are a highly specialized high-tech enterprise producing, researching and developing bamboo charcoal-based products with an established domestic and international sales and distribution network. On July 12, 2017, we completed the acquisition of Suzhou E Motors Co, which was later renamed as Shangchi Automobile, a vehicle manufacturer based in Zhangjiagang City, Jiangsu Province, and our business includes the manufacture and sale of vehicles. In November 2020, we established two subsidiaries in Zhejiang Province with the plan of producing and selling specialty electric vehicles such as driverless street sweepers.

We provide our products primarily in the following areas:



We oversee a national sales network that has a presence in 19 cities throughout China for our charcoal products. Through distributors, our charcoal products are also sold in Japan, South Korea, Taiwan, the Middle East and Europe.

In addition to our bamboo charcoal products, we also derive revenues from our trading activities, which primarily relate to industrial purchases and sales of charcoal.

Further, we own an indirect 18% interest in Libo Haokun Stone Co., Ltd., a marble mining operating company, and an indirect 14.76% interest in Fuquan Chengwang, a basalt mining company.

We are headquartered in the bamboo rich southwest of Zhejiang Province, in the city of Lishui. Zhejiang province, located in southeastern coastal China, is China’s tenth largest province in population, with 58.5 million residents, and tenth in terms of population density as of the end of 2019. The first province in China without any counties in the poverty-county list of the central government, Zhejiang has become one of the wealthiest and most commercial provinces in China. Its province-wide GDP of approximately RMB 6.23 trillion in 2019 places it as the fourth highest in China in absolute amount.

Lishui is a prefecture-level city located in southwest Zhejiang province. Approximately 2.7 million residents live in the city as the end of 2019, and city-wide GDP is approximately RMB 147.7 billion in 2019. Lishui’s primary industries include wood and bamboo production, ore smelting, textile, clothes making, construction materials, pharmaceutical chemistry, electronic machinery and food processing. As to wood and bamboo production, approximately 69% of Lishui prefecture is covered with forest, giving it the nickname “The Foliage Ocean of Zhejiang.”



We rely on a combination of patent, trademark and trade secret laws and non-disclosure agreements and other methods to protect our intellectual property rights. We currently own five patents and 36 trademarks in China covering our bamboo charcoal production and eighteen patents and 2 trademarks in China veering our vehicle production.

For the years ended December 31, 2020, 2019 and 2018, two major suppliers accounted for approximately 70%, three major suppliers accounted for approximately 76% and three major suppliers accounted for approximately 72% of the Company's total purchases, respectively. Because we purchase a material amount of our raw materials from these suppliers, the loss of any such suppliers could result in increased expenses for our company and result in adverse impact on our business, financial condition and results of operations.

### **Bamboo and Bamboo Charcoal**

As a company primarily focused on bamboo charcoal, our business is in a sub-part of China's bamboo industry. Government policies that encourage the use of bamboo also benefit the bamboo charcoal industry. Accordingly, we provide a brief overview of bamboo and those elements of China's bamboo industry, insofar as they have an effect on the bamboo charcoal industry in general and our company in particular.

### **Bamboo**

Bamboo plants are some of the fastest growing plants in the world, with some varieties growing more than three feet per day. Moreover, Bamboo can be re-grown quickly following harvesting, ensuring high frequency utilization without shortages. Unlike trees, individual bamboo culms emerge from the ground at their full diameter and grow to their full height in a single growing season of three to four months. Over the next 2–5 years, fungus begins to form on the outside of the culm, which eventually penetrates and overcomes the culm. Eventually the fungal growths cause the culm to collapse and decay. As a result, bamboo culms generally have life cycles of up to ten years, at which point they must be cut down in order to preserve the environment of the surrounding forest. Optimal quality bamboo culms for carbonization are cut at five years of age. Additional bamboo can be grown in the same area where previous culms grew.

Bamboo is considered environmentally friendly because it takes in substantial amounts of carbon dioxide and gives off oxygen as it grows. Indeed, bamboo sequesters more carbon dioxide than an equivalent region of plantation trees. Moreover, harvesting of bamboo is considered more environmentally friendly than allowing it to live through the full life cycle, as such harvesting maximizes the amount of carbon dioxide the bamboo can sequester because of the effects of fungus noted above.

The total value of China's bamboo industry was approximately \$35 billion, as of 2018. As of 2018, it employs more than 8 million people and has become a pillar industry of development of economic society of China's bamboo main producing area and major income source of peasants' families. Given bamboo's importance in China, we believe that favorable government policies and regulations encouraging the advancement of bamboo technology in China generally will create an environment favorable to our increased production of bamboo-based charcoal products. The Chinese government is also working to develop its bamboo industry to meet its goals in environmental protection and green economic development, as planting bamboo is both profitable and environmentally-friendly, according to the International Network for Bamboo and Rattan ("INBAR"). Moreover, given the central government's goal to reduce carbon dioxide emissions per unit of GDP by 60 to 65 percent by 2030 compared to 2005, we expect the bamboo technology industry to continue to be important to the country's long-term planning.

According to statistics from INBAR, China has more than 6 million hectares for bamboo production and over 500 bamboo species. In 2018, for example, the domestic industry was worth \$30 billion and employed more than 8 million people.

During a period of rampant deforestation, China put in place restrictions on harvesting of natural wood and encouraged the country to make more use of bamboo. Under the National Forest Protection Program (“NFPP”), China implemented natural forest logging bans that covered 17 provinces in China. These bans required consumers of charcoal to look to other sources for creation of charcoal than the natural trees they were most familiar with using. During this time, bamboo charcoal became a viable alternative in the country.

Bamboo has many desirable characteristics compared to timber based products:

- Culms are ideally allowed to reach 5-7 years of maturity prior to full capacity harvesting. The clearing out or thinning of culms, particularly older decaying culms, helps to ensure adequate light and resources for new growth;
- Commercial growers can annually harvest between one-quarter and one-third of a bamboo grove that is at least three years old. Harvesting at such rates allows continuous, sustainable harvesting;
- Bamboo will re-grow from same rootstalk (rhizome);
- Plant tends to be drought tolerant; and
- Bamboo minimizes carbon dioxide gases and generates up to 35% more oxygen than an equivalent area of trees. One hectare of bamboo can sequester 62 tons of CO<sub>2</sub>/year, while one hectare of young forest can sequester 15 tons of CO<sub>2</sub>/year.

The physical and environmental properties of bamboo make it an exceptional economic resource for a wide range of uses. It grows quickly and can be harvested annually without depletion of the parent plant and without causing harvesting damage or deterioration in soil quality; in addition bamboo is very versatile and has many uses in the construction, culinary, furniture, pulp, pharmaceutical, and textiles industries. New uses for bamboo are being developed as we understand its biological, chemical and physical characteristics.

The global bamboos market size was valued at USD 68.8 billion in 2018 and is expected to grow at a compound annual growth rate of 5.0% from 2019 to 2025. There are about 39 genera of bamboo and more than 590 species in China with more than 6 million hectares of pure bamboo forest, which accounts for 25% of the bamboo area in the world. With more than 6 million hectares of bamboo plantations as of September 2018, China is leading the world’s bamboo industry in its number of varieties, amount of bamboo reserves, as well as production output, said Zehui Jiang, co-chair of INBAR’s board of trustees.

Zhejiang province is situated on the shore of the East China Sea and has about thirty genera and four hundred varieties of bamboo. Bamboo products made there are sold all around the world, with an annual output of RMB 48.6 billion (\$6.9 billion) in 2017. Zhejiang province has almost one sixth of the whole bamboo forest area in China.

### **Bamboo Charcoal**

Bamboo charcoal has been documented in China as early as 1486 AD during the Ming Dynasty in China. Bamboo charcoal has traditionally been used as a heating source, in replacement of wood, coal or wood charcoal. As a source of heat, bamboo charcoal has a calorific value approximately half that of an equivalent weight of oil, and similar to the calorific value of wood. In addition to being an efficient source of heat, bamboo charcoal is considered by the International Tree Foundation less polluting than wood charcoal, because it burns more cleanly due to a lower percentage of volatile matter. Smoke and pollution in charcoal burning relate largely to moisture content and volatile matter. While careful processing can control the moisture content, the ratio of volatile matter is affected by the source of charcoal.

Because of the relatively higher pollution levels in wood charcoal, it is estimated that the burning of wood fuel claims the lives of an estimated 4 million people every year who inhale the smoke. Moreover, it takes between seven and ten tons of wood to produce one ton of wood charcoal, compared with four tons of bamboo to produce one ton of bamboo charcoal.

In addition to use as a heating source, bamboo charcoal has applications as an adsorbent, deodorizer, dehumidifier, purifier and electrical conductor. Nonactivated bamboo charcoal is a versatile mineral matter with great porosity and consequently high absorption ability. Bamboo charcoal's porous surface area makes it an ideal air and water purifying agent, odor absorbent, additive, dehumidifier and electromagnetic wave absorber (electromagnetic waves from computers, mobile telephones and other electronics can be conducted through bamboo charcoal to dissipate their energy in the charcoal pores). While wood charcoal's surface area may be as low as 20 m<sup>2</sup>/g, bamboo charcoal generally ranges from 300-600 m<sup>2</sup>/g.

While bamboo charcoal has a high absorptive capacity after carbonization, it becomes even more effective after activation. Activated bamboo carbon is bamboo charcoal that has been taken through an extra step greatly increasing its absorptive abilities. Activated bamboo charcoal can be used for cleaning the environment, absorbing excess moisture and producing medicines.

The carbonization process occurs in the absence of oxygen and produces a brown-black liquid containing more than 200 organic compounds known as bamboo vinegar, or pyroligneous acid. Following sedimentation two distinct layers appear: a light yellow-brown liquid (clarified bamboo vinegar) which can be refined to produce acetic acid, propionic acid, butyric acid, carbinol and organic solvents, and a viscid oily liquid (bamboo tar) containing large amounts of phenol substances. Bamboo vinegar is found in sanitary and health products as well as a range of horticultural fertilizers and organic solutions.

### **EDLC Carbon (Divested Business)**

On December 14, 2017, the Company entered into a sale agreement and related agreements to transfer its EDLC carbon business (including intellectual property rights and equipment) to Zhejiang Apeikesi Energy Co., Ltd., a PRC start-up company controlled by Dr. Zaihua Chen, our former CTO. With the completion of the transactions, the Company expected to focus its core business on the development of electric vehicle products and traditional charcoal products. Tantech's Board of Directors approved the terms of the sale based on a valuation report obtained by the parties and with knowledge that Dr. Chen was the Company's CTO during the transaction. However, as part of the transactions, Dr. Chen resigned from the Company's CTO position on December 31, 2017.

The decision of the Company to divest its EDLC carbon business was made based on business considerations, including the fact that (1) the company's EDLC carbon business had been dependent on a very limited number of customers, (2) capital constraints on additional substantial investment on developing EDLC Carbon products, (3) a challenging market condition and unfavorable political climate and (4) the Company's future transition focus of its traditional charcoal business to electric vehicle business.

Pursuant to the agreements, Tantech sold to the buyer all of its intellectual property rights related to EDLC carbon and the equipment for R&D and production. The buyer paid Tantech a total purchase price of RMB 16 million. The payment will be made over 10 years. Other key terms include the following: (a) the first payment of 28% of the total purchase price, or RMB 4.48 million, was made in 2017, consisting of RMB 3.2 million in cash advancement and RMB 1.28 million as payment for Tantech's EDLC carbon related IP rights; (b) the remaining balance of the purchase price will be paid evenly over the following nine years; (c) the second payment of RMB 1.28 million of the purchase price and cash interests on the remaining cash receivable was made in 2018; and (d) Tantech will lease its office space, including offices and EDLC carbon R&D and production facilities, to the Buyer, subject to a concession of a free leasehold for the first two years.

## Our Products



Before acquisition of Shangchi Automobile, we primarily produced and sold three categories of products (including EDLC carbon products which were divested in 2017), all of which are produced from bamboo charcoal or bamboo charcoal byproducts. Because of the lifespan and fast growth rate of bamboo, our products are considered environmentally friendly. Moreover, our facilities have received ISO 14001:2004 certification, which reflects our focus on measuring and managing our environmental impact.



Samples of Charcoal Doctor solid products from our exhibition hall



Samples of Charcoal Doctor liquid products from our exhibition hall.

## BBQ Charcoal Products

We sell pressed and formed charcoal briquettes for use in grills, incense burners, and other applications for which the primary purpose of the charcoal is burning for heat or fuel. These products are sold in China and internationally under the Algold brand. Previously we produced most of these products by ourselves. Since 2019, we stopped producing BBQ charcoal products due to the stricter environmental requirements by the local government and started to purchase them from third party manufacturers.



BBQ Charcoal Briquettes



Hookah Coals



Refined BBQ Charcoal



Disposable BBQ Grill

Our charcoal briquettes are processed from carbonized bamboo and wood into charcoal and pressed into shapes appropriate for our customers' preferred use. These products include barbecue grill briquettes, disposable all-in-one barbecue grills (including charcoal), and fuel for incense and tobacco burners.

We expect revenues generated from our charcoal briquette products in oversea market will increase, however we expect total revenue in our charcoal briquette will keep current relevant level in comparison to these other segments and in absolute terms.

### Charcoal Doctor Products

Our primary consumer brand is Charcoal Doctor ("Tan Boshi" or "Dr. Tan" in Chinese). In processing the charcoal products, the primary byproducts are solid charcoal and charcoal vinegar. We make use of both the solid and liquid byproducts in our Charcoal Doctor products.

Our Charcoal Doctor brand products have been the primary source of our revenue over the last few years. Charcoal Doctor products are sold throughout China and stocked by many supermarkets and specialty shops in Zhejiang Province and other provinces. We seek to protect and grow our market share pricing our products aggressively, often as much as 10-15% below our competitors' prices. Our Charcoal Doctor products' gross profit margins average 26%, largely due to our industrialized and automated production processes. We plan to expand product lines in the coming years to take advantage of the many uses of bamboo charcoal and vinegar. Charcoal Doctor products can be categorized according to their physical state: liquid or solid:

Our solid charcoal products are primarily used for purification and deodorization. These consumer products are made from dry distilled carbonized bamboo, and have the ability to absorb harmful substances and foul odors from the air, including benzene, toluene, ammonia and carbon tetrachloride. The primary ingredient of these products, activated charcoal, is an adsorbent. Our solid Charcoal Doctor products generally fit within three categories: (1) charcoal bags, primarily used as air purifiers and humidifiers, (2) charcoal deodorants and (3) toilet cleaning disks. Our primary Charcoal Doctor solid products include the following:

- Air purifiers and humidifiers
- Automotive accessories for air purification
- Underfloor humidity control
- Pillows and mattresses

- Wardrobe deodorizers
- Mouse pads and wrist mats
- Refrigerator deodorant
- Charcoal toilet cleaner disks
- Liquid charcoal cleaner
- Shoe insoles
- Decorative charcoal gifts

Samples of the range of solid Charcoal Doctor products are pictured below.



Flat Health Pillow



Memory Foam Back Rest



Mesh Charcoal Insole



Clothes Hanger



Rod Charcoal Head Pillow



Air Purifier/Humidifier



Wardrobe Strips



Liquid Toilet Cleaner



Bottle Bag



Toilet Cleaner Disks



Car Air Purifiers



Refrigerator Deodorants



In addition to providing solid charcoal, the carbonization process also results in a liquid byproduct called bamboo vinegar. Bamboo vinegar is used in disinfectants, detergents, lotions, specialized soaps, toilet cleaners and fertilizers. We have also adapted our bamboo vinegar for use in a variety of agricultural applications:

- Fruit, vegetable, and other plant fertilizers
- Soil conditioners and sweeteners
- Flower nutrients
- Toilet cleaning liquid detergent and solid disks
- Hand washing sanitation

Samples of the range of liquid Charcoal Doctor products are pictured below.



We believe liquid products are crucial to maintaining close ties with the agricultural industry, which we expect will be a key area for growth in the coming years. We have expanded in this area by adding production lines for daily health products, such as toilet-cleaning products, hand washing products, as well as other everyday household items based on silver ion anti-bacterial nanotechnology.

We use this silver ion nanotechnology for sterilization to improve the effectiveness of our sanitation and purification products. We purchase silver ion nano powder from third parties to add into our products. We use our own formulas for the purification and sanitation products that incorporate such powder.

We have developed two kinds of products that use our silver ion nanotechnology. Our detergent products are based on bamboo vinegar and are supplemented by the introduction of silver ion nano powder. These products are used for washing clothes and are in the trial stage. We began trial sales of our silver nano detergent products in Yantai (Shandong Province), Lishui (Zhejiang Province), Chengdu (Sichuan Province) and Zhengzhou (Henan Province) in November 2012. We have concluded our trial sales in Lishui and Chengdu (and plan to conclude sales in Yantai upon the exhaustion of current trial sales inventory), and our preliminary conclusions are that customers liked the product but were less enthusiastic about the packaging. As a result, we adjusted our packaging in preparation for full-scale sales. Given the investment required to improve brand awareness for our silver ion nano detergent, we will focus first on Zhengzhou before beginning to plan either the expansion plan or the timeline for such expansion into other cities in China. At the same time as we are selling such products under our Charcoal Doctor brand name in China, we also sell these products to Africa and the Middle East.

Our silver ion bamboo charcoal bag products are used for odor absorption and air purification. We combine our charcoal powder products with silver ion nano powder to achieve a charcoal bag that may be stored in a wider variety of locations. If our traditional bags are stored in conditions that are too damp and warm, mold or mildew may grow. Our silver ion nano products are able to fight the growth of mold and mildew, allowing them to be used in damp conditions without problem. We have begun to promote and sell limited numbers of such bags in connection with our sales of traditional charcoal bags. We are promoting these bags in anticipation of adding such products to our portfolio of products for sale in supermarkets and other stores. Our distributors typically invite us to apply in June or July to update the products we will offer for sale in their customer stores, and we are required to pay a fee for shelf space at such time. Accordingly we plan to increase demand for our silver ion nano products in anticipation for adding them to the list of products we sell this year. As we will make these silver ion nano charcoal bags available everywhere we offer our traditional charcoal bags, we will leverage our existing sales and distribution channels to introduce these products to the market.

## **Vehicles**

On July 12, 2017, the Company acquired a 70% equity interest of Shangchi Automobile, formerly Suzhou E-Motors. Suzhou E-Motors develops, manufactures, and sells electric vehicles and fuel vehicles. The company also offers solar cells, lithium-ion batteries, auto parts, and electric control systems in China. Its manufacturing facility, located in Zhangjiagang City, Jiangsu Province, is 15,000 square meters. Shangchi Automobile has been approved by the MITT as qualified to manufacture vehicles. It is also entitled to both central and local government subsidies with any approved EV models. As of the date of this report, Shangchi Automobile has not updated the previous ten EV models and one fuel vehicle model approved by MIIT.

Shangchi Automobile has to date developed a full range of electric buses and a variety of specialty vehicles. It has developed ten models of electric buses, electric logistics cars, and electric specialty vehicles, such as high-speed brushless cleaning cars, electric cleaning cars, special emergency vehicles, and funeral cars. The sale region for current products is mainly within Jiangsu Province where the Shangchi Automobile locates. In 2018, we sold 110 electric logistic vehicles to Southern China. In 2019, we sold 117 electric logistic cars on behalf of other vehicle manufacturers for commission income. In 2020, we produced 10 fuel midibuses and exported them to Singapore. In addition, we sold 85 fuel midibuses and 59 electric specialty vehicles in fiscal 2020 on behalf of other vehicle manufacturers for commission income.

Below are examples of the vehicles produced by Shangchi Automobile.

**Tourist Buses.** The tourist buses are 12-meter-long and 7-meter-long lithium-battery-based buses whose interior noise is less than 76 dBs and off vehicle acceleration noise is less than 82 db.



**Logistic Vehicles.** The electric logistic vehicles are 4.2-meter-long, 810 kg standard load weight fully charged vehicles. Each are a 100% electricity-driven vehicle specially designed for logistics companies. The batteries for this vehicle can be charged and discharged quickly, and each vehicle is made of high quality steel stamping body which is highly durable. The internal structure and the design of the car doors are both made for the deliverers' convenience.





**Urban Sanitary Vehicles.** The urban sanitary vehicles work with high efficiencies with low operating expenses. They travel (clean) around 20~30 km/hr with fuel consumption rates approximately 3.33 km/liter. The vehicles are equipped with professional sanitary vehicle chasses, with front axle drives & front axle steering to strengthen their operations' stability and smoothness; the whole vehicle is made of strengthened steel plates and pipes, making it more durable and anti-collusive.



Below are the major vehicle components we purchase for assembling the EVs:

- Vehicle chassis

- Electric motors
- Lithium-ion battery packs
- Three-in-One electric control systems
- Vehicle carriage

In general, the purchase of the vehicle chassis, electric motors, lithium-ion battery pack and three-in-one electric control system have covered two-thirds of EVs' production cost. We purchase these components from four different but well-established suppliers in China.

We currently rely on local EV distributors to sell our EVs to end-users. The primary reason for such a sales channel is the dependence on local government subsidy policies. In general, local governments only allow the locally-licensed EV distributors to sell EV vehicles, which are entitled to EV road permits and subsidies.

Over the years, Shangchi Automobile has had more than 20 EV core technologies and patents, including nanotechnology for raw materials for power lithium electronics, group technology of power lithium electronics and battery management technology.

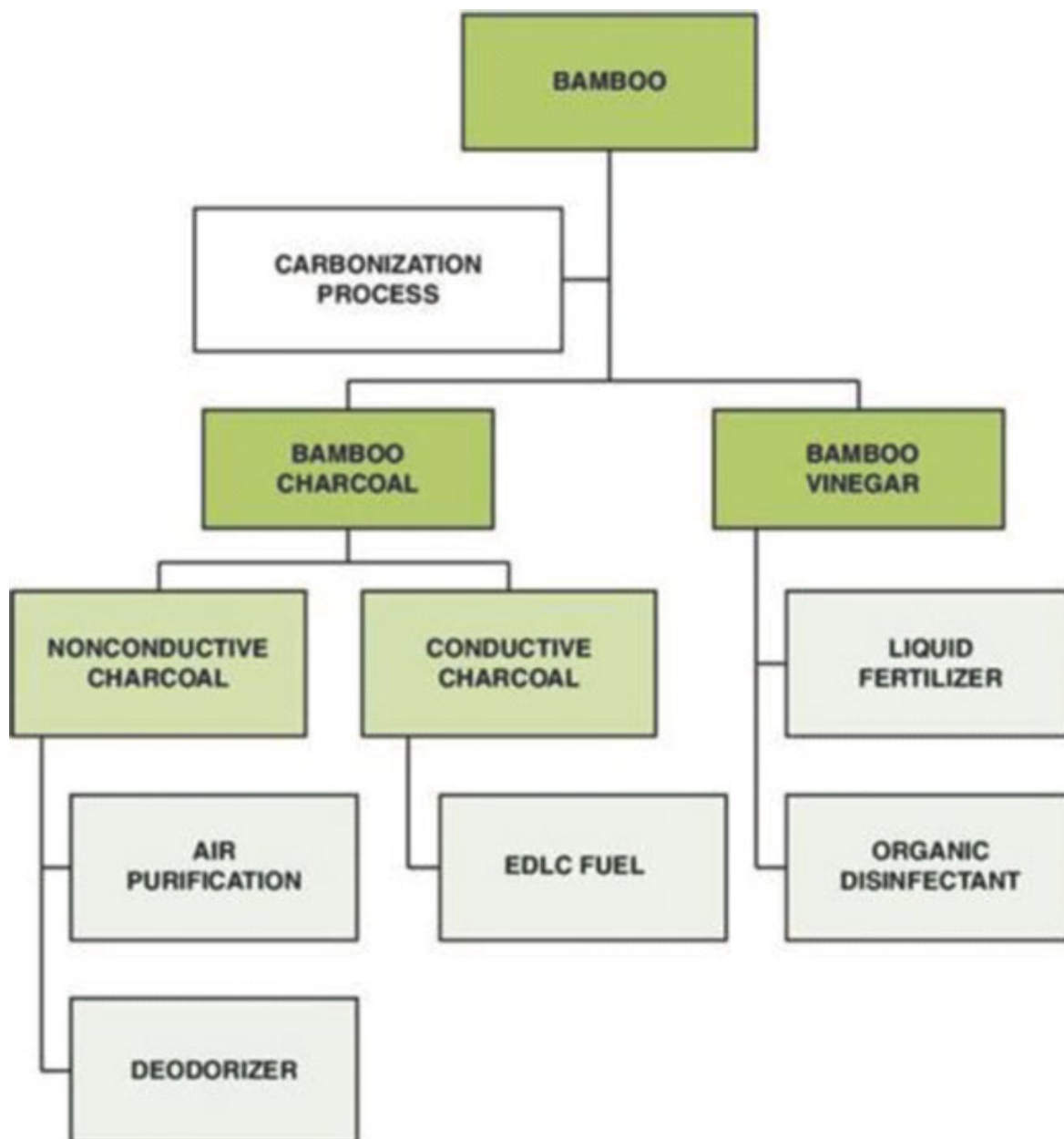
**Fuel Buses.** In addition to EVs including electric buses, Shangchi Automobile also produces fuel buses. Our major fuel bus products are sleek, diesel midibuses which have an overall length of 7 meters, two doors and have seats for 23 passengers, with a total capacity of 50. Featuring a manual 5 speed transmission and all the luxuries of a high-end bus, the midibus boasts an efficient, luxury travel experience with comfortable seating, USB charging ports, powerful air conditioning and a state-of-the-art air purification system. We can also assemble fuel buses based on the customers' customized requirements.



**Autonomous Electric Street Sweepers.** We have developed three driverless and autonomous street sweeper models. They are designed for closed areas and therefore do not require any vehicle manufacturing license. All of them are electric. The Shangchi SC-120A model features unmanned, automatic sweeping, the Shangchi SC-120B model features manned, autonomous, intelligent sweepingle, and the Shangchi SC-100A features unmanned, automatic sweeping, autonomous learning, and remote control. These street sweepers are designed for quieter operation and improved cleaning performance, with the ability to reduce or eliminate the 7 to 8 humans required for typical sweeper vehicle operation. While we have not produced any driverless street sweepers for sale as of the date of this report, we established two companies, Lishui Smart and Zhejiang Shangchi, to produce and sell street sweepers, respectively.

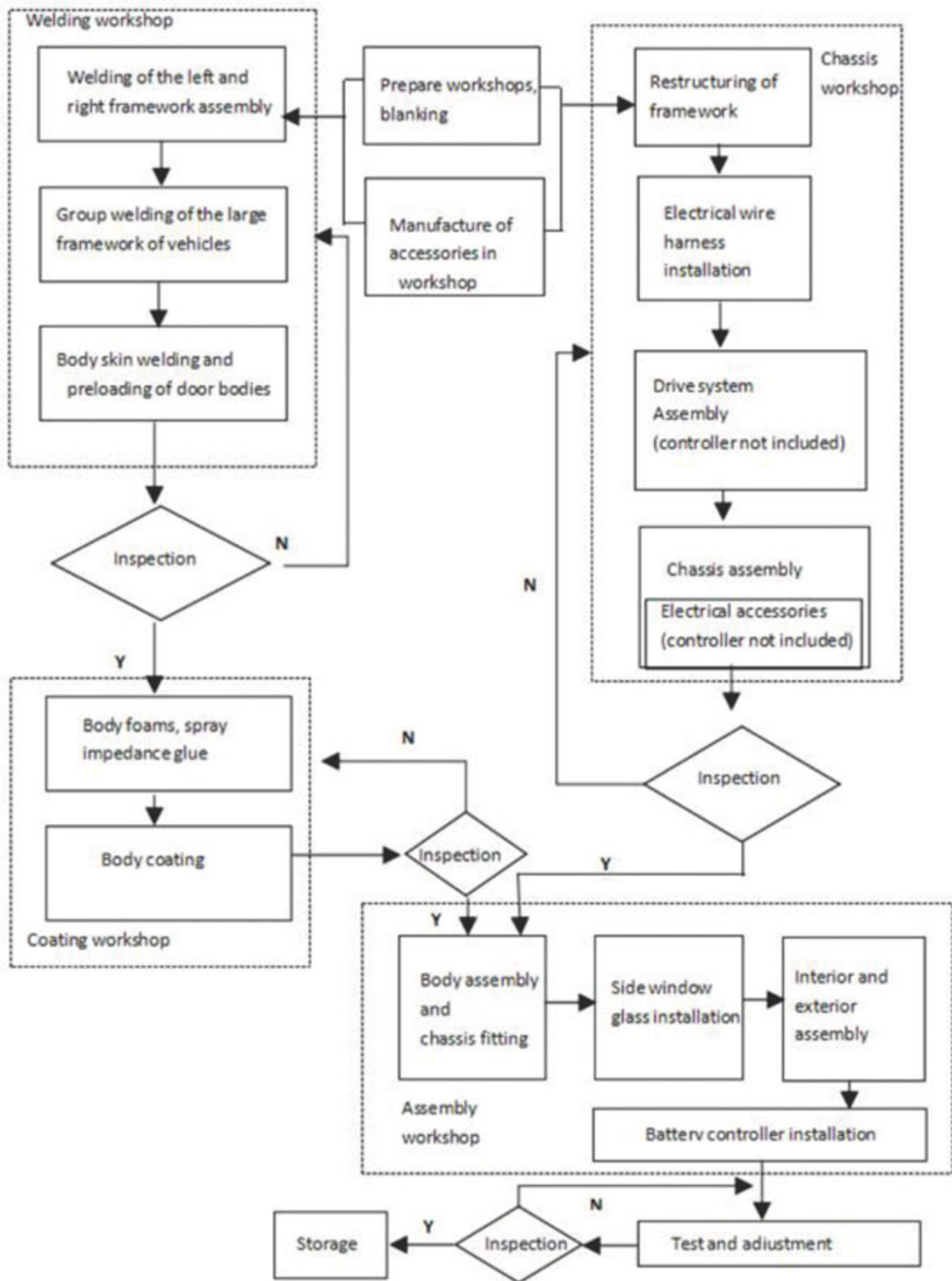
## Our Processing Workflow of Bamboo Charcoal Products

We develop and manufacture our bamboo charcoal products using the following processing workflow:





We develop and manufacture our electric vehicles using the following processing workflow:



## Raw Materials

Our primary raw material for charcoal products is bamboo charcoal. Each year, we purchase bamboo charcoal locally that has been prepared to our specifications from between 15 and 20 suppliers located in and around Lishui. The majority of such purchases comes from approximately four suppliers. In recent years, due to the rising awareness of environmental protection, the Zhejiang province is taking a series of measures to improve water environment, which has led to a massive closure of small-sized bamboo charcoal manufacturers. In addition, we were unable to purchase wood charcoal briquettes from a large supplier, Tahe Xingzhongda Carbon Co. in 2016, due to shortage of supply. However, we have taken actions to remedy such matters, in particular to our primary raw material, bamboo charcoal. Therefore, we do not expect any shortage supply from bamboo charcoal in coming years.

We also purchase bamboo vinegar for use in our liquid products. Our bamboo vinegar suppliers in some but not all cases are the same as our bamboo charcoal suppliers. As the supply of bamboo vinegar is directly related to the supply of bamboo charcoal, we believe we have a steady supply of bamboo vinegar given the prevalence of bamboo in the Lishui area. Accordingly, we do not anticipate any lack of availability of bamboo vinegar for our liquid products.

We purchase wood charcoal briquettes from a supplier in Heilongjiang province for use in our OEM BBQ charcoal products. As such products have low technical requirements and are typically used for heating and cooking purposes, we have found that competing on price makes purchasing wood-based charcoal for such purposes suit our customers' requirements. Our primary source for wood charcoal briquettes, which we rebrand under our Algold brand for sale in China, is Tahe Xingzhongda Carbon Co. in Daxing Anling, Heilongjiang province. In 2016, we were unable to purchase raw material from Tahe Xingzhongda Carbon Co. It caused major decline in our domestic charcoal briquettes sale. While we have adjusted our purchasing strategies to look for alternatives, due to tightening environmental control in local authority, we expect the cost of wood charcoal briquettes would increase in the coming years.

In addition to our primary raw materials, we also purchase small amounts of other raw materials, such as silver ion nano powder, fabric for charcoal bags, packaging materials, and coconut charcoal. We do not anticipate any difficulty in replacing the suppliers of any of such minor raw materials.

The prices of our primary raw materials have not historically been volatile. We have generally experienced differences in price of less than 5% over the course of a year for our primary raw materials.

## Vehicles

We do not produce major vehicles components directly from raw material. In general, we purchase major parts directly from four major suppliers. The suppliers for parts are shown below:

- Beijing National Energy Battery Technology Co., Ltd — Lithium-ion battery cells
- Dongfeng Xiangyang Travel Vehicle Co., Ltd — Vehicle chassis
- Suzhou Greencontrol Transmission Technology Co., Ltd — Electric motors
- Wuhan Hiconics Power Technology Co., Ltd — Three-in-One electric control systems

## Distribution Channels and Methods of Competition

### International Markets and Customers

Our bamboo charcoal products are also sold directly or indirectly through distributors to international markets. Such exported products include bamboo vinegar, bamboo charcoal and purification product. The majority of our export items are for non-energy use. We estimate that with respect to our charcoal products that the percentage of goods sold for export is approximately 5%, with the majority destined for Japan, South Korea and Taiwan.



## **Domestic Markets and Customers**

Currently, our consumer products and vehicles are sold via our distributors' networks. In addition, we have a logistics center in Lishui and relationships with third-party warehousing companies in Hangzhou, Jinan, Shanghai and Zhengzhou. Starting from 2016, we have been selling our products mainly through distributors instead of operating logistics and warehousing facilities internally. In addition, we have significantly cut our charcoal product sales to supermarket customers.

We are in the process of expanding our charcoal product line to include toilet cleaning and kitchen cleaning products, among others. We believe there will be a high demand for these types of products because of growing awareness of cleanliness and environmental protection, as well as antibacterial products and disinfectants. In addition, we are in the process of restructuring our distribution network in an effort to cut both overall time and costs relating to the sale cycle.

## **Geographic Distribution of Revenues**

Beginning in 2017, our charcoal products are sold via distributors instead of direct distribution to supermarkets and chain stores. As all of our sales are completed in China, with title transferring to our customers in the country, we estimate most of our products are sold and used in China. We have divested our EDLC line of business, which had contributed greatly to our international sales.

## **Electric Vehicles**

Supported by the Chinese government's endorsement and driven by its focus on petroleum resource independence, environmental protection and the "Made in China 2025" industrial upgrade, we believe the electric vehicle sector is the most promising segment in the Chinese auto industry. China has become the largest new energy vehicle market in the world. According to a central government forecast, China's new energy vehicle sales are projected to grow to 1.8 million units in 2021, and its penetration rate is expected to reach 7% by 2021.

Our specialty vehicles have a variety of uses in many areas. Each of these vehicles integrate the advanced technology of mechanical, electronic, hydraulic, chemical, environmental protection and other fields into a special vehicle chassis to realize its specific function. Specialty vehicles are widely used in the highway transportation, engineering construction, oil fields, mines, electricity, telecommunications, postal, medical, environmental sanitation, agriculture, water conservancy, aviation, food, public security, fire protection, justice and national defense construction markets.

In general, our EV product faces two group of competitors: manufacturers of conventional fuel vehicles and EV manufactures. In terms of competitors specializing in conventional fuel vehicles, many of them are much larger in terms of size, have greater manufacturing capabilities, and have larger customer bases than we do. However, the conventional fuel vehicle manufacturers face many challenges, including environmental pollution and energy scarcity, which provides great opportunities for the rapid development of the EV industry in China. In addition, conventional fuel vehicle manufacturers have begun focusing their attention on developing and producing EV, and we expect that we may face tougher competition in the future from these manufacturers.

There are many companies in China that engage in the research, production and distribution of electric vehicles. Competition within the electric vehicle market is intense as we have to compete with many domestic and global companies, established and new EV manufactures, some of which have greater brand recognition and resources than we do. As a brand new player in the Chinese electric vehicle industry, we hope our focus on developing specialty vehicles might give us advantages in a niche market, rather than facing strong competition from similar vehicles on the consumer vehicle market.

## Methods of Competition

The primary market for our Charcoal Doctor line of products is household hygiene use. Our air purification, deodorizing, and other health promoting products such as our charcoal pillow, cater to a niche but growing market of health-conscious customers. Customers in this sector have a particular affinity to brands. Notwithstanding this loyalty, product-switching costs are low, so manufacturers must compete on price.

We conducted a marketing survey in Guangzhou in October 2013 for our charcoal bag products. According to the survey, we found that a decrease in package weight of 10% or an increase in price of 5% resulted in a loss of sales of less than 1%, showing that the market could absorb minor changes. By contrast, when the price increase reached 10% or the package weight decrease reached 15%, we saw that 30% of respondents were willing to choose alternate brands or forego a purchase. We further found that for cleaning and purification products, 85% of respondents cared about design attractiveness and approximately 65% made purchasing decisions based on attractiveness, causing us to conclude that demand for our products is more heavily influenced by such products than by minor (but not major) economic fluctuations.

Because the household hygiene sector has enjoyed relatively strong growth in the last few years as a result of increases in disposable urban income and an increased awareness of healthy lifestyle products, we have focused on growing our market share in this industry. In order to do this, compete by pricing our products aggressively, often at a discount of 10 – 20% below our competitors. In addition, we pride ourselves on providing a high quality product, so that our customers believe they have received value for the price they pay.

With regard to household carbonized bamboo products, the Charcoal Doctor brand is one of the largest and most famous. Our Charcoal Doctor brand name has been recognized as a “China Well-known Brand” by the China Brand Strategy Management Association, and our products have been recognized as a “Zhejiang Famous Forest Product” by the Zhejiang Famous Forest Product Affirmation Committee and have been awarded “The Fifth China Yiwu International Forestry Product Expo Gold Award” by the Fifth China Yiwu International Forestry Product Expo Committee. Moreover, the 2014 – 2018 China Bamboo Charcoal Products Market Research and Corporate Strategy Analysis Report notes high brand recognition for Charcoal Doctor products in China.

The industry is geographically concentrated in the South East of China in the provinces of Anhui, Zhejiang and Fujian where bamboo is more prominent, the bamboo charcoal industry is also fragmented since it is subject to relatively low barriers of entry; low initial capital expenditure, low technical requirements (excluding high end EDLC carbon compounds), highly homogenous products and few substitutes.

We face competition from a number of companies operating in the vicinity. Many of these companies have similar profiles in terms of size, number of employees and product ranges. One of the largest competitors is Zhejiang Maitanweng Ecology Development Co. Ltd. (“Zhejiang Maitanweng”), a local company also from Zhejiang Province.

Zhejiang Maitanweng has the largest franchise in the industry with a presence in over 100 cities in China. Like our Company, Zhejiang Maitanweng has an extensive product portfolio of 200 household, automotive and health related bamboo charcoal-based products.

Zhejiang Jiejiegao Charcoal Industry Ltd. Co. (“Jiejiegao”) is another company with a similar product portfolio. Also located in the Lishui vicinity, it also holds many awards, and its products are stocked by Walmart, Hualian, Century Mart and other supermarkets like our products are. Jiejiegao is also one of the founding members of INBAR — International Network for Bamboo and Rattan.

Due to product homogeneity and low barriers to entry branding is an important differentiator in the industry. We are not aware of any foreign competitors in this specific segment.

## Awards and Recognition

The Company is fully ISO 9000 and ISO 14000 certified and has received a number of national, provincial and local honors, awards and certifications for its quality products and scientific research efforts. In addition, our subsidiary Tantech Charcoal participated in the creation of Part 1, Part 2 and Part 3 of ISO 21626, an international standard for bamboo charcoal.

## 2004

- Lishui High-Tech Product Company Certification for its Bamboo Vinegar

## 2005

- Zhejiang Province High Tech Product Award for its Bamboo Vinegar
- Zhejiang Science and Technology Award (Third Class) for R&D of a continuous distillation process during the bamboo carbonization process

## 2006

- Zhejiang Science and Technology Award (Third Class) for its Liquid Bamboo Vinegar Products
- Forestry Industry Award for Excellence in Forestry — Liquid Bamboo Vinegar Products (6<sup>th</sup> Anniversary)
- Lishui City Forestry Industry Key Enterprise in Forestry Award
- Liandu District High Tech Prize (Second Class) for R&D in Carbonization of Bamboo

## 2007

- Zhejiang New Forestry High Tech Company Industrialization Project Award for R&D efforts in super capacitors using bamboo charcoal
- Zhejiang Provincial-Level Key Enterprise in Forestry Award
- Lishui Science and Technology Award (First Class) for its Liquid Bamboo Vinegar Products

## 2008

- Official China High Tech Industry Enterprise Certificate (this award entitles the company to preferential enterprise income tax rates of 15% rather than 25%)

## 2009

- National Torch Plan Project Certificate for Liquid Bamboo Products
- National Science and Technology Progress Award (Second Class) for Bamboo Carbonization

## 2011

- Zhejiang Science and Technology Award (Second Class) for its Activated Carbon Production Technology and Equipment Research
- Garden Unit Recognition for beautification and ecological efforts

## 2012

- Lishui City Recognition for Patent Grants

2013

- Zhejiang Province High Technology Enterprise Recognition

2014

- Lishui City Doctoral Working Station

## Research and Development

We are committed to researching and developing applications of bamboo charcoal, activated bamboo charcoal and EVs such as street sweepers. We believe scientific and technological innovations will help the Company achieve its long-term strategic objectives. R&D is an integral part of our operations and the crux of its competitive advantage and differentiation strategy.

Our R&D team is well educated and has far-reaching research capabilities. The R&D team has 3 dedicated researchers and analysts, with one focusing on Charcoal Doctor product development and applications, and two focusing on developing vehicle products such as street sweepers. Quality control is an important aspect of the team's work and ensuring quality at every stage of the process has been a key driver in maintaining and developing brand value for the Company.

We are collaborating with technology companies and consultants on developing specialty EVs, and plan to invest heavily in this area in 2021.

We have also collaborated with a number of top domestic universities and institutions for the advancement of bamboo charcoal research and process technology. Recent efforts and collaborations cover a wide range of areas including but not limited to: bamboo vinegar applications, bamboo yield and quality improvements, bamboo's natural characteristics, bamboo carbonization process optimization and engineering initiatives to optimize and integrate production processes. It is through these collaborations that the company has managed to secure important breakthroughs resulting in proprietary knowledge and patents. Research has been carried out in cooperation with the following notable institutions:

- China National Bamboo Research and Development Center
- Zhejiang University of Agriculture and Forestry
- Zhejiang Academy of Forestry & Zhejiang Forestry Institute

## Our Research Projects

We have led or participated in numerous scientific projects that have led to important technological breakthroughs and advances. The following list does not include EDLC research projects which we transferred in December 2017 to Zhejiang Apeikesi Energy Co., Ltd, a PRC start-up company controlled by Dr. Zaihua Chen, our former Chief Technology Officer.

<b>Project Description</b>	<b>Time Period</b>	<b>Project Level</b>
Bamboo carbonization technology R&D for tobacco product manufacturing	12/2007-06/2010	Zhejiang Provincial Government funded scientific agricultural project
Development of dry distillation of bamboo wood	06/2007-05/2009	Central government funded high-tech agricultural project
Technological innovations to be able to produce bamboo vinegar in a continuous process	04/2006-04/2008	Zhejiang Provincial Government funded scientific agricultural project
Bamboo vinegar spontaneous combustion automation production technology	08/2004-12/2006	Central Government funded high-tech agricultural project
Bamboo R&D for lithium-ion battery anodes	08/2004-02/2006	Zhejiang Provincial Government funded scientific project
The research and demonstration for technology of agricultural waste carbonization and low ignition point molding charcoal fuel preparation	01/2016-12/2018	Zhejiang Provincial Government directly funded scientific project
Demonstration and promotion of green combustible carbon manufacturing technology using epicarps residue	08/2015-12/2017	Central Government funded forestry technology promotion project
R&D for driverless street sweepers	10/2020-present	Cooperate with other companies

During the years ended December 31, 2020, 2019 and 2018, we spent \$890,316, \$327,260 and \$386,628, respectively, on R&D. Because we discontinued our EDLC carbon business, our R&D expense decreased accordingly from 2018 to 2019. We had more R&D expenses in 2020 than 2019 because we increased our R&D expenses for our EV segment, mainly on driverless street sweepers.

## Our Patents

We rely on our technology patents to protect our domestic business interests and ensure our position as a bamboo carbon technology pioneer in our industry. We have placed a high priority on the management of our intellectual property. Some products that are material to our operating results incorporate patented technology. Patented technology is critical to the continued success of our products. However, we do not believe that our business, as a whole, is dependent on, or that its profitability would be materially affected by the revocation, termination, expiration or infringement upon any particular patent. We currently hold five patents on charcoal products and eighteen patents on vehicles.

### Patents on Charcoal Products

Patent Description	Holder	Patent Type	Application	Expiration	Patent Number
Biomass acaricide with gasified tar for organic pesticides	Tantech Bamboo	Invention	Jan. 24, 2006	Jan. 23, 2026	ZL 200610049234.0
Methods for water and bamboo vinegar refining	Tantech Bamboo	Invention	Nov. 13, 2003	Nov. 12, 2023	200310116248.6
A Filling and fixing device for Bottles of Plant nutrient solution	Tantech Bamboo	Utility Model	Dec. 30, 2015	Dec. 29, 2025	201521127995.4
Laundry detergent bottles	Tantech Bamboo	Design	Jun. 28, 2013	Jun. 27, 2023	201330292120.X
Refrigerator deodorant box	Tantech Bamboo	Design	Jun. 28, 2013	Jun. 27, 2023	201330291808.6

### Patents on Vehicles

Patent Description	Holder	Patent Type	Application	Expiration	Patent Number
Road Sweeper	Shangchi Automobile	Patent for Invention	Aug 28, 2012	Aug 27, 2022	ZL201210311790.6
Car Break Pad	Shangchi Automobile	Utility Mode	April 1, 2017	Mar 31, 2027	ZL201720342785.X
A radiator brake disc for easy installation	Shangchi Automobile	Utility Mode	Oct 23, 2017	Oct 22, 2027	ZL201721371604.2
A Pure Electric Express Logistics Delivery Vehicle	Shangchi Automobile	Utility Mode	May 29, 2018	May 28, 2028	201820864875.X
An Electric EVA Type Instrument Panel Structure	Shangchi Automobile	Utility Mode	May 29, 2018	May 28, 2028	201820812054.1
A safe body structure of EVA electric vehicle	Shangchi Automobile	Utility Mode	May 29, 2018	May 28, 2028	ZL201820811968.6
An environmentally friendly electric road sweeper	Shangchi Automobile	Utility Mode	May 29, 2018	May 28, 2028	ZL201820811949.3
EVA electric vehicle body structure with reduced wind resistance	Shangchi Automobile	Utility Mode	May 29, 2018	May 28, 2028	ZL201820811893.1
Welding device for electric bus	Shangchi Automobile	Utility Mode	Mar 11, 2019	Mar 10, 2029	ZL201920304901.8
Brake test bench of electric bus	Shangchi Automobile	Utility Mode	Mar 12, 2019	Mar 11, 2029	ZL201920305048.1
A painting device for electric bus	Shangchi Automobile	Utility Mode	Mar 11, 2019	Mar 10, 2029	ZL201920299713.0
Electric bus brake	Shangchi Automobile	Utility Mode	Mar 12, 2019	Mar 11, 2029	ZL201920305227.5
Electric bus tire disassembly and installation equipment	Shangchi Automobile	Utility Mode	Mar 12, 2019	Mar 11, 2029	ZL201920311747.7
Assembly equipment for glass parts of electric bus	Shangchi Automobile	Utility Mode	Mar 11, 2019	Mar 10, 2029	ZL201920299890.9
Speedometer inspection table of electric bus	Shangchi Automobile	Utility Mode	Mar 11, 2019	Mar 10, 2029	ZL201920299127.6
An auxiliary anti-slip device for electric bus	Shangchi Automobile	Utility Mode	Mar 12, 2019	Mar 11, 2029	ZL201920305222.2
An impact window breaker for electric bus	Shangchi Automobile	Utility Mode	Mar 12, 2019	Mar 11, 2029	ZL201920305206.3
Electric car parts processing mold	Shangchi Automobile	Utility Mode	Mar 11, 2019	Mar 10, 2029	ZL201920305169.6

## **Our Trademarks and Domain Names**

We rely on trademarks and service marks to protect our branding. As of the date of this report, we hold over 38 registered trademarks about or related to “Charcoal Doctor” and “Shangchi” in different applicable trademark categories in China. We also own a domain name of tantech.cn, the registration of which will expire on March 11, 2022. This website is not part of this report and is not incorporated by reference herein.

## **REGULATIONS**

We are subject to a variety of PRC and foreign laws, rules and regulations across a number of aspects of our business. This section summarizes the principal PRC laws, rules and regulations relevant to our business and operations. Areas in which we are subject to laws, rules and regulations outside of the PRC include intellectual property, competition, taxation, anti-money laundering and anti-corruption.

### **Investment Direction Regulations**

On March 27, 2011, the National Development and Reform Commission (“NDRC”) issued the Guidance Catalogue for Industrial Structure Adjustments (2011 edition), which was amended on February 16, 2013. This Catalogue is an important basis for the government to guide investment direction, promote technology innovation and industrial upgrading. Pursuant to relevant laws and regulations, in line with the promotion of energy conservation and green industry initiatives, the approval authorities will strictly control energy-intensive, polluting and natural resources industries, such as projects in low-end, capacity-redundant and over-expansion projects. Environmental protection departments and other departments with jurisdiction will also review such projects for compliance with applicable criteria.

The Catalogue divided industries into three categories: “encouraged,” “restricted,” and “eliminated” for investment. Industries not listed in the Catalogue are generally deemed as falling into a fourth category, “permitted.”

The Catalogue has been replaced by the Special Administrative Measures (Negative List) for Foreign Investment Access (2018), effective July 28, 2018, and amended and restated by the 2019 version, effective July 20, 2019 (the “Negative List”). The Negative List specifies the prohibited and non-prohibited (similar to the restricted in the Catalogue) industries for foreign investment. For the industries not covered by the Negative List, the foreign investment and the domestic investment have equal access. Foreign investors may not invest in the prohibited industries specified by the Negative List. For the non-prohibited industries on the Negative List, a foreign investor must obtain an investment permit. There are certain requirements on the equity ownership and the executive officers of the foreign invested enterprises. If PRC has certain equity requirements in certain investment fields, no foreign-invested partnership may be established.

According to the Negative List, our charcoal products do not fall under the prohibited industries.

Given the Chinese government’s move toward more environmentally friendly initiatives, we believe the bamboo industry, and in particular, the bamboo charcoal industry, are poised to grow, both for heating and cooking purposes and also for charcoal byproduct uses for cleaning, purification and deodorization.

According to the Negative List, foreign investors may invest fully in our electric vehicle products. Nevertheless, as we may also produce other automobile products, we still keep our VIE structure designed under the Catalogue which did not allow more than 50% of foreign investment in the general automobile industry.

### **Chinese Central Government Subsidy Support Policies for EV Manufacturers**

On September 13, 2013, the Chinese Ministry of Finance, the Chinese Ministry of Science and Technology, the Chinese Ministry of Industry and Information Technology, and the Chinese National Development and Reform Commission issued a joint announcement that in order to promote the development, sale and use of alternative energy vehicles, Chinese government will continue to provide a manufacturing rebate for qualifying alternative energy vehicles sold. The Chinese central government subsidy support policies, or rebate policies, have been changing every year. For example, the Chinese central government subsidy support policies effective as of January 1, 2017, called for a 20% of reduction in central government subsidies per electric car in 2017 from its 2016 level and the total local government subsidy matched to be not more than 50% of the total central government subsidies per electric car. The reduction of subsidies from both the central government and local governments inevitably increased the costs to the consumers to purchase our EVs, which caused temporary pressure for us to expand our EV sales. The change in subsidy payment methods in 2017 from paid-in-advance to paid post-sale and further delay in releasing subsidy payments for the EVs manufactured and sold in the prior years also caused the potential delay in collection of the accounts receivable from our business partners, which temporarily increased the pressure on our working capital for continuing operations. Since 2018, the rebate policies required all the EVs manufactured since 2016 to install the national platform so the government could monitor the mileage and other information. Accordingly, we installed the platform on our EVs manufactured since 2016. Since 2019, the rebate policies required the battery capacity attenuation can’t exceed 20%.

### **Intellectual Property Rights Regulations**

The State Council and the National Copyright Administration, or the NCAC, have promulgated various rules and regulations relating to the protection of software in China. Under these rules and regulations, software owners, licensees and transferees may register their rights in software with the NCAC or its local branches and obtain software copyright registration certificates. Although such registration is not mandatory under PRC law, software owners, licensees and transferees are encouraged to go through the registration process to enjoy the better protections afforded to registered software rights.

On March 1, 2009, the MIIT promulgated the Administrative Measures on Software Products, or the Software Measures, which replaced the original Administrative Measures on Software Measures promulgated by MIIT in October 2000, to regulate software products and promote the development of the software industry in China. Pursuant to the Software Measures, software products which are developed in China and registered with the local provincial government authorities in charge of the information industry and filed with MIIT may enjoy the relevant encouragement policies. Software developers or producers may sell or license their registered software products independently or through agents. Upon registration, the software products will be granted registration certificates. Each registration certificate is valid for five years and may be renewed upon expiration.

The PRC Trademark Law, adopted in 1982 and revised in 1993, 2001 and 2013 respectively, with its implementation rules adopted in 2002 and revised in 2014, protects registered trademarks. The PRC Trademark Office of the State Administration for Industry and Commerce, or the SAIC, handles trademark registrations and grants a protection term of ten years to registered trademarks.

The MIIT amended its Administrative Measures on China Internet Domain Names in 2004. According to these measures, the MIIT is in charge of the overall administration of domain names in China. The registration of domain names in PRC is on a “first-apply-first-registration” basis. A domain name applicant will become the domain name holder upon the completion of the application procedure.

### **Regulations on Tax**

Our business operations are governed primarily by tax laws in the PRC. A description of the material tax consequences applicable to holders of our common shares may be found in the section titled “Item 10. Additional Information.-E. Taxation.” For more information regarding the impact of the PRC Enterprise Income Tax Law, see “Risk Factors — Under the Enterprise Income Tax Law, we may be classified as a “Resident Enterprise” of China. Such classification will likely result in unfavorable tax consequences to us and our non-PRC stockholders.”

### **Foreign Exchange Regulation**

The principal regulations governing foreign currency exchange in China are the Foreign Exchange Administration Regulations. Under the PRC foreign exchange regulations, payments of current account items, such as profit distributions and trade and service-related foreign exchange transactions, may be made in foreign currencies without prior approval from SAFE by complying with certain procedural requirements. By contrast, approval from or registration with appropriate government authorities is required where RMB is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of foreign currency-denominated loans or foreign currency is to be remitted into China under the capital account, such as a capital increase or foreign currency loans to our PRC subsidiaries.

In August 2008, SAFE issued the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign-Invested Enterprises, or SAFE Circular 142, regulating the conversion by a foreign-invested enterprise of foreign currency-registered capital into RMB by restricting how the converted RMB may be used. In addition, SAFE promulgated Circular 45 on November 9, 2011 in order to clarify the application of SAFE Circular 142. Under SAFE Circular 142 and Circular 45, the RMB capital converted from foreign currency registered capital of a foreign-invested enterprise may only be used for purposes within the business scope approved by the applicable government authority and may not be used for equity investments within the PRC. In addition, SAFE strengthened its oversight of the flow and use of the RMB capital converted from foreign currency registered capital of foreign-invested enterprises. The use of such RMB capital may not be changed without SAFE’s approval, and such RMB capital may not in any case be used to repay RMB loans if the proceeds of such loans have not been used.

In November 2012, SAFE promulgated the Circular of Further Improving and Adjusting Foreign Exchange Administration Policies on Foreign Direct Investment, which substantially amends and simplifies the current foreign exchange procedure. Pursuant to this circular, the opening of various special purpose foreign exchange accounts, such as pre-establishment expenses accounts, foreign exchange capital accounts and guarantee accounts, the reinvestment of RMB proceeds by foreign investors in the PRC, and remittance of foreign exchange profits and dividends by a foreign-invested enterprise to its foreign shareholders no longer require the approval or verification of SAFE, and multiple capital accounts for the same entity may be opened in different provinces, which was not possible previously. In addition, SAFE promulgated the Circular on Printing and Distributing the Provisions on Foreign Exchange Administration over Domestic Direct Investment by Foreign Investors and the Supporting Documents in May 2013, which specifies that the administration by SAFE or its local branches over direct investment by foreign investors in the PRC shall be conducted by way of registration and banks shall process foreign exchange business relating to the direct investment in the PRC based on the registration information provided by SAFE and its branches.



In July 2014, SAFE decided to further reform the foreign exchange administration system in order to satisfy and facilitate the business and capital operations of foreign invested enterprises, and issued the Circular on the Relevant Issues Concerning the Launch of Reforming Trial of the Administration Model of the Settlement of Foreign Currency Capital of Foreign-Invested Enterprises in Certain Areas, or Circular 36, on August 4, 2014. This circular suspends the application of Circular 142 in certain areas and allows a foreign-invested enterprise registered in such areas to use the Renminbi capital converted from foreign currency registered capital for equity investments within the PRC.

On March 30, 2015, SAFE released the Notice on the Reform of the Management Method for the Settlement of Foreign Exchange Capital of Foreign-invested Enterprises, or Circular 19, which has made certain adjustments to some regulatory requirements on the settlement of foreign exchange capital of foreign-invested enterprises, lifted some foreign exchange restrictions under Circular 142, and annulled Circular 142 and Circular 36. However, Circular 19 continues to, prohibit foreign-invested enterprises from, among other things, using Renminbi fund converted from its foreign exchange capitals for expenditure beyond its business scope, providing entrusted loans or repaying loans between non-financial enterprises.

On June 19, 2016, SAFE issued the Circular of the State Administration of Foreign Exchange on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or Circular 16, which took effect on the same day. Compared to Circular 19, Circular 16 not only provides that, in addition to foreign exchange capital, foreign debt funds and proceeds remitted from foreign listings should also be subject to the discretionary foreign exchange settlement, but also lifted the restriction, that foreign exchange capital under the capital accounts and the corresponding Renminbi capital obtained from foreign exchange settlement should not be used for repaying the inter-enterprise borrowings (including advances by the third party) or repaying the bank loans in Renminbi that have been sub-lent to the third party.

### **SAFE Circular 37**

In July 2014, SAFE issued SAFE Circular 37, which supersedes SAFE Circular 75, and requires that PRC citizens or residents must register with the relevant local SAFE branch before making capital contribution to any offshore entity directly established or indirectly controlled by that PRC citizen or resident for the purpose of investment or financing and with onshore or offshore assets or equity interests legally owned by that PRC citizen or resident. In addition, the SAFE registrations are required to be updated with local SAFE branch with respect to that offshore special purpose company in connection with the change of its basic information, such as its company name, business term, shareholding by individual PRC citizens or residents, merger, or division and, with respect to the individual PRC citizens or residents in case of any increases or decreases of capital in that offshore special purpose company, or share transfers or swaps by the individual PRC citizens or residents

### **Share Option Rules**

Under the Administration Measures on Individual Foreign Exchange Control issued by the PBOC on December 25, 2006, all foreign exchange matters involved in employee share ownership plans and share option plans in which PRC citizens participate require approval from SAFE or its authorized branch. In addition, under the Notices on Issues concerning the Foreign Exchange Administration for Domestic Individuals Participating in Share Incentive Plans of Overseas Publicly-Listed Companies, or the Share Option Rules, issued by SAFE on February 15, 2012, PRC residents who are granted shares or share options by companies listed on overseas stock exchanges under share incentive plans are required to (i) register with SAFE or its local branches, (ii) retain a qualified PRC agent, which may be a PRC subsidiary of the overseas listed company or another qualified institution selected by the PRC subsidiary, to conduct the SAFE registration and other procedures with respect to the share incentive plans on behalf of the participants, and (iii) retain an overseas institution to handle matters in connection with their exercise of share options, purchase and sale of shares or interests and funds transfers. We will make efforts to comply with these requirements.

## Regulation of Dividend Distribution

The principal laws, rules and regulations governing dividend distribution by foreign-invested enterprises in the PRC are the Company Law of the PRC, as amended, the Wholly Foreign-owned Enterprise Law and its implementation regulations and the Equity Joint Venture Law and its implementation regulations. Under these laws, rules and regulations, foreign-invested enterprises may pay dividends only out of their accumulated profit, if any, as determined in accordance with PRC accounting standards and regulations. Both PRC domestic companies and wholly-foreign owned PRC enterprises are required to set aside as general reserves at least 10% of their after-tax profit, until the cumulative amount of such reserves reaches 50% of their registered capital. A PRC company is not permitted to distribute any profits until any losses from prior fiscal years have been offset. Profits retained from prior fiscal years may be distributed together with distributable profits from the current fiscal year.

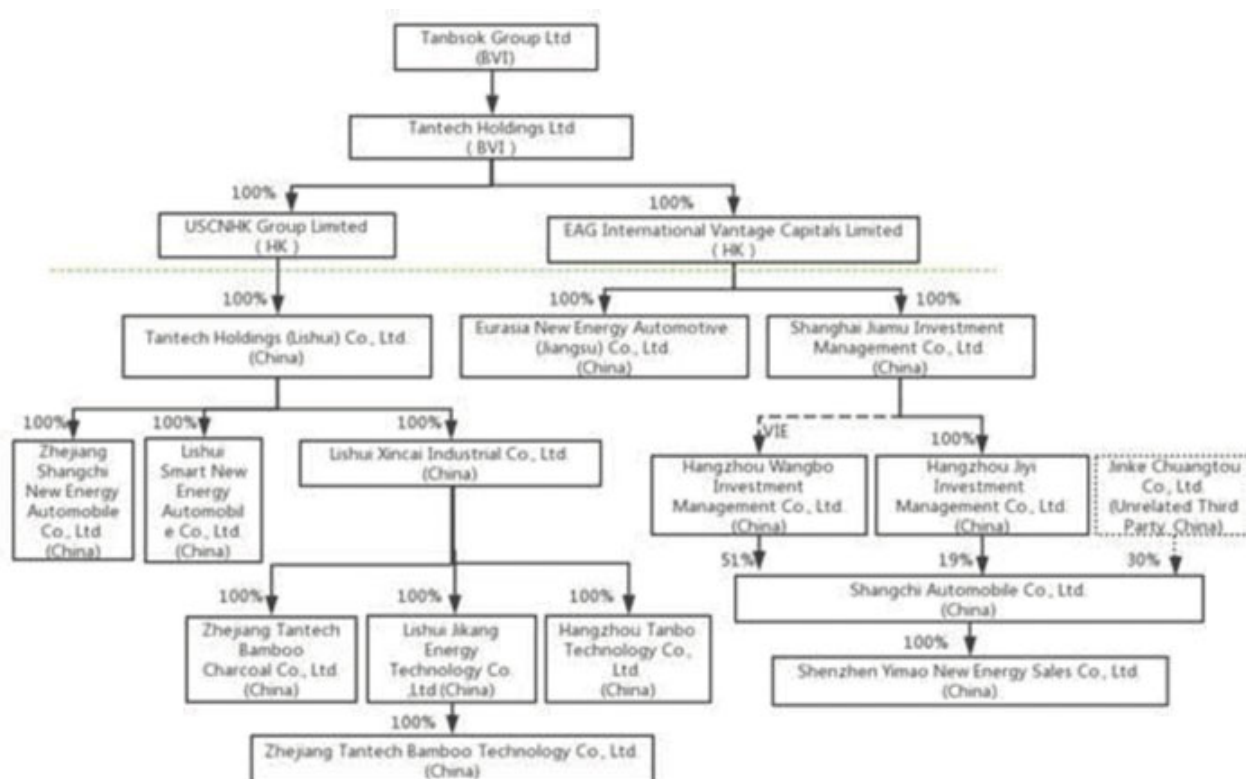
## Labor Laws and Social Insurance

Pursuant to the PRC Labor Law and the PRC Labor Contract Law, employers must execute written labor contracts with full-time employees. All employers must comply with local minimum wage standards. Violations of the PRC Labor Contract Law and the PRC Labor Law may result in the imposition of fines and other administrative and criminal liability in the case of serious violations.

In addition, according to the PRC Social Insurance Law, employers in China must provide employees with welfare schemes covering pension insurance, unemployment insurance, maternity insurance, work-related injury insurance, medical insurance and housing funds.

## C. Organizational structure

Below is a chart representing our current corporate structure:



In the above charts, we provide the English names of our corporate entities. As to Tantech Holdings Ltd, USCNHK Group Limited and EAG International Vantage Capitals Limited, the English names are the legal names of the entities. As to the other corporate entities, their legal names are in Chinese, and the English translations are provided as courtesy translations.

Our registered agent in the British Virgin Islands is Vistra (BVI) Limited. Our registered office and our registered agent's office in the British Virgin Islands are both located at Vistra Corporate Services Centre, Wickhams Cay 2, Road Town, Tortola, VG1110, British Virgin Islands. Our agent in the U.S. is Shangzhi Zhang, with the address of 33202 Havers Drive, Cary, NC 27518.

#### ***Tantech Holdings Ltd (“THL”)***

THL was incorporated on November 9, 2010 under the BVI Companies Act, 2004 as a company limited by shares under the name “Sinoport Enterprises Limited中港企業有限公司” On April 15, 2013, Sinoport Enterprises Limited changed its name to “Tantech Holdings Ltd炭博士控股有限公司”. On March 4, 2016, the Company's name was changed to “Tantech Holdings Ltd”. At the time of its formation, THL was authorized to issue 50,000 common shares with a par value of \$1.00 per share. On November 19, 2010, THL issued 50,000 shares to its sole shareholder, Forasen Energy Co., Ltd, now named “Tanbsok Group Limited.”

On November 25, 2014, in contemplation of the initial public offering of its common shares, THL effected a simultaneous (a) 1,000-for-1 split of its common shares and (b) pro-rata redemption for par value and cancellation of 600 of such shares (30,000,000 in total). This transaction was accomplished in this way for several business reasons: (1) we wanted to maintain \$50,000 in aggregate share capital; (2) in anticipation of the offering, we desired to increase the total number of common shares and reduce their per-share price to a level consistent with the targeted offering price in the offering; and (3) prior to completion of the recapitalization, we had issued all of the shares we were authorized to issue and needed to create authorized but unissued shares by repurchasing a portion of such authorized and outstanding shares.

Upon completion of these transactions, THL was authorized to issue 50,000,000 common shares, \$0.001 per share, of which 20,000,000 were issued and outstanding. At formation, THL had one director, Dehong Zhang, a citizen of China. On June 21, 2013, Yefang Zhang, a citizen of the Saint Lucia, was also appointed as a director of THL. In June 2014, THL appointed three independent directors, all citizens of the PRC: Hongdao Qian, Shudong Wang and Wencai Pan.

On March 24, 2015, THL completed an initial public offering of 1,600,000 common shares.

On March 1, 2016, THL completed a private placement of 1,693,000 common shares.

On May 30, 2016, THL completed a private placement of 2,500,000 common shares.

On December 28, 2016, THL completed a private placement of 1,018,935 common shares.

On September 29, 2017, THL completed a registered direct offering and issued 1,891,307 common shares.

On September 28, 2018, THL completed an issuance of 150,000 common shares.

On March 23, 2020, THL completed an issuance of 35,592 common shares.

On November 24, 2020, THL completed a registered direct offering and issued 6,060,608 common shares.

In November 2020, THL issued 944,655 common shares upon exercise of warrants.

#### ***USCNHK Group Limited (“USCNHK”)***

USCNHK was formed on October 17, 2008 under the Companies Ordinance (Chapter 32) of Hong Kong under the name “Raymond & O/B Raysuccess Co., Limited.” On December 2, 2010, Raymond & O/B Raysuccess Co., Limited changed its name to “USCNHK Group Limited.” USCNHK's authorized share capital is HKD 10,000, and the company has issued 10,000 shares, par value HKD 1.00 per share, to its sole shareholder, THL. USCNHK has one director, Dehong Zhang, a citizen of the China. On June 21, 2013, Yefang Zhang, a citizen of the Saint Lucia, was also appointed as a director of USCNHK.

***Tantech Holdings (Lishui) Co., Ltd. (“Lishui Tantech”) (Chinese name: 碳博士控股 (丽水) 有限公司)***

Lishui Tantech was formed on April 7, 2016 as Lishui Tantech energy technology Co., Ltd. On May 17, 2017, it changed its name to Lishui Tantech Energy Technology Co., Ltd., and on July 7, 2017 changed its name again to Tantech Holdings (Lishui) Co., Ltd. Lishui Tantech’s authorized share capital is RMB 200 million, of which USCNHK owns 100% interest. Lishui Tantech is organized as a limited liability company under PRC law. Lishui Tantech has one director, Wangfeng Yan, who is a PRC citizen.

***Lishui Xincai Industrial Co., Ltd. (“Lishui Xincai”) (Chinese name: 丽水鑫财实业有限公司)***

Lishui Xincai was formed on December 14, 2017 by an unrelated third party. Its authorized share capital is RMB 5 million. On December 25, 2017, the third party transferred its shares in Lishui Xincai to Lishui Tantech. Since then, Lishui Xincai has been Lishui Tantech’s wholly owned subsidiary. Lishui Xincai is organized as a limited liability company under PRC law. Lishui Xincai has one director, Wangfeng Yan, who is a PRC citizen.

***Lishui Smart New Energy Automobile Co., Ltd. (“Lishui Smart”) (Chinese name: 丽水智动新能源车辆有限公司)***

We established Lishui Smart on November 16, 2020 as a limited liability company under PRC law. Lishui Smart’s authorized share capital is RMB 20 million, of which Lishui Tantech owns 100%. Lishui Smart has one director, Wangfeng Yan, who is a PRC citizen.

***Zhejiang Shangchi New Energy Automobile Co., Ltd. (“Zhejiang Shangchi”) (Chinese name: 浙江上驰新能源车辆有限公司)***

We established Zhejiang Shangchi on November 12, 2020 as a limited liability company under PRC law. Zhejiang Shangchi’s authorized share capital is RMB 20 million, of which Lishui Tantech owns 100%. Zhejiang Shangchi has one director, Wangfeng Yan, who is a PRC citizen.

***Zhejiang Tantech Bamboo Charcoal Co., Ltd. (“Tantech Charcoal”) (Chinese name: 浙江富来森竹炭有限公司)***

Tantech Charcoal was formed on September 5, 2002. Tantech Charcoal’s authorized share capital is RMB 3.5 million, of which Lishui Xincai owns 100%. Lishui Xincai purchased the equity interest from Tantech Bamboo on December 31, 2019. Tantech Charcoal is organized as a limited liability company under PRC law. Tantech Charcoal has two directors, Fengwang Yan and Xuefen Zhang, who are PRC citizens.

***Lishui Jikang Energy Technology Co., Ltd. (“Jikang Energy”) (Chinese name: 丽水吉康能源科技有限公司)***

Jikang Energy was formed on January 2, 2020. Jikang Energy’s authorized share capital is RMB 5 million, of which Lishui Xincai owns 100%. Jikang Energy is organized as a limited liability company under PRC law. Jikang Energy has one director, Wangfeng Yan, who is a PRC citizen. Jikang Energy is a holding company and does not conduct any substantial business.

***Hangzhou Tanbo Technology Co., Ltd. (“Tanbo Tech”) (Chinese name: 杭州炭博科技有限公司)***

Tanbo Tech was formed on December 8, 2015 by Tantech Bamboo as a limited liability company under PRC law. Tanbo Tech’s authorized share capital is RMB 10 million. On January 3, 2020, Tantech Bamboo transferred all its equity in Tanbo Tech to Lishui Xincai. Since then, Tanbo Tech has been Lishui Xincai’s wholly owned subsidiary. Tanbo Tech has one director, Wangfeng Yan, who is a PRC citizen.

***Zhejiang Tantech Bamboo Technology Co., Ltd. (“Tantech Bamboo”) (Chinese name: 浙江富来森中竹科技有限公司)***

Tantech Bamboo was formed on October 23, 2002 under the name “Lishui Zhonglin High-Tech Co., Ltd.” (Chinese: 丽水中林高科有限公司). On December 31, 2005, Tantech Bamboo changed its name to “Zhejiang Tantech Bamboo Technology Co., Ltd.” Tantech Bamboo’s authorized share capital is RMB 80 million, of which Lishui Tantech owns 100% interest. Tantech Bamboo has one director, Zhengyu Wang, who is a PRC citizen.

***EAG International Vantage Capitals Limited (“Euroasia”) (Chinese name: 欧亚通国际资本有限公司)***

Euroasia was formed on April 27, 2015. Its share capital was HKD \$10,000. It was organized as a limited company in Hong Kong, of which THL owns 100%. Euroasia has one director, Yefang Zhang, who is a citizen of Saint Lucia. In our previous reports, we called it Euroasia International Capital Co., Ltd., which is the English translation of its Chinese name 欧亚通国际资本有限公司.

***Euroasia New Energy Automotive (Jiangsu) Co., Ltd. (“Euroasia New Energy”) (Chinese name: 欧亚通新能源(江苏)汽车有限公司)***

Euroasia New Energy was formed on October 24, 2017. Its authorized share capital is USD 30.1 million, of which Euroasia owns 100%. It is organized as a limited liability company under PRC law. Euroasia New Energy has one director, Mingqin Dong, who is a PRC citizen.

***Shanghai Jiamu Investment Management Co. Ltd. (“Jiamu”) (Chinese name: 上海佳木投资管理有限公司)***

Jiamu was formed on July 14, 2015. Its authorized share capital is RMB 500,000, of which Euroasia owns 100%. It is organized as one-person limited company (Taiwan Hong Kong & Macao invested) under PRC law. Jiamu has one director, Zhengyu Wang, who is a PRC citizen.

***Hangzhou Wangbo Investment Management Co. Ltd. (“Wangbo”) (Chinese name: 杭州王博投资管理有限公司) -VIE***

Wangbo was formed on February 2, 2016. Its authorized share capital is RMB 500,000. Henglong Chen and Zhengyu Wang, as the original shareholders, held 5% and 95% shares respectively. On June 6, 2017, Henglong Chen transferred his 5% shares to Wangfeng Yan. On December 4, 2019, Zhengyu Wang transferred his 95% shares to his daughter Xinyang Wang. The legal representative is Wangfeng Yan.

***Hangzhou Jiyi Investment Management Co. Ltd. (“Jiyi”) (Chinese name: 杭州吉益投资管理有限公司)***

Jiyi was formed on February 2, 2016. Its authorized share capital is RMB 500,000, of which Jiamu holds 100%. It is organized as a limited liability company under PRC law. It has one director, Wangfeng Yan, who is a PRC citizen.

***Shangchi Automobile Co., Ltd. (“Shangchi Automobile”) (Chinese name: 上驰汽车有限公司)***

Shangchi Automobile was established in April 2011 as Suzhou E-Motors. It changed its name to Shangchi Automobile in January 2019. It develops, manufactures, and sells vehicles. The company also offers solar cells, lithium-ion batteries, auto parts, and electric control systems in China. Its manufacturing facility, located in Zhangjiagang City, Jiangsu Province is 15,000 square meters. Shangchi Automobile has been approved by Ministry of Industry and Information Technology of the People’s Republic China (MIIT) through *Road Motor Vehicle Production Enterprises and Products Announcements* as qualified to manufacture electric vehicles. It is also entitled to both central and local government subsidies with any approved EV models. As of the date of this report, Shangchi Automobile has not updated the previous ten EV models and remained one fuel vehicle model approved by MIIT.

Pursuant to the Call Option Agreement executed on May 2, 2016, Supplemental Agreement I signed on December 22, 2016 and Supplemental Agreement II signed on July 12, 2017, the Company acquired a 70% equity interest of Shangchi Automobile, formerly Suzhou E-Motors. Shangchi Automobile is a specialty electric vehicles and battery manufacturer based in Zhangjiagang City, Jiangsu Province, China. After the acquisition, the Company owns a 100% equity interest of EAG International Vantage Capitals Limited, a Hong Kong limited company (“Euroasia”) and its wholly owned subsidiary Jiamu, which further owns 100% equity interest of Jiyi. Jiyi owns a 19% of equity interest of Shangchi Automobile. In addition, Jiamu entered into a series of contractual agreements with the owners of Wangbo, which owns 51% of the equity interests of Shangchi Automobile. The latest agreements include an Exclusive Management Consulting and Technology Agreement, two Equity Pledge Agreements, two Exclusive Call Option Agreements, two Proxy Agreements and two Power of Attorney (collectively, the “VIE Agreements”).

Pursuant to the above VIE Agreements, which are described in further detail below, Jiamu has the exclusive right to provide Wangbo consulting services related to business operations including technical and management services. Taken together, the VIE Agreements obligate Jiamu to absorb a majority of the risk of loss from Wangbo’s activities and entitle Jiamu to receive a majority of their residual returns. In essence, Jiamu has gained effective control over Wangbo. Therefore, the Company believes that Wangbo should be considered as a Variable Interest Entity (“VIE”) under the Statement of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 810 “Consolidation”. As a result, the Company ultimately controls a 70% equity interest of Shangchi Automobile and the accounts of Shangchi Automobile are consolidated into those of the Company. Euroasia, Jiamu, Jiyi and Wangbo are all investment holding companies with no significant business activities (collectively “E-Motor Holdings”).

### *Contractual Arrangements*

We have chosen to use contractual relationships in our corporate structure because direct investment by foreign-owned companies in the automobile industry is restricted to own no more than 50% of equity.

Historically, the principal regulation governing foreign ownership of businesses in the PRC was the Foreign Investment Industrial Guidance Catalogue, effective as of April 10, 2015 (the “Catalogue”). The Catalogue classified various industries into three categories: encouraged, restricted and prohibited. Tantech is engaged in business in industries where direct foreign investment over 50% was expressly prohibited: automobile industry.

Due to the previous regulations on foreign ownership of PRC businesses, Jiamu and Wangbo entered into a series of contractual arrangements, also known as VIE Agreements. The variable interest entity, or VIE, agreements are designed to provide Jiamu with the power, rights and obligations equivalent in all material respects to those it would possess as the sole equity holder of its controlled company, including absolute control rights and the rights to the assets, property and revenue of Wangbo. Our PRC counsel has advised that the VIE agreements constitute valid and binding obligations of the parties to such agreements and are enforceable and valid in accordance with the laws of the PRC.

However, the Catalogue has been replaced by the Special Administrative Measures (Negative List) for Foreign Investment Access (2018), effective July 28, 2018, and amended and restated by the 2020 version, effective July 23, 2020 (the “Negative List”). The Negative List specifies the prohibited and non-prohibited (similar to the restricted in the Catalogue) industries for foreign investment. For the industries not covered by the Negative List, the foreign investment and the domestic investment have equal access. According to the Negative List, our new energy automobile products under Shangchi Automobile are not prohibited. Nevertheless, we have decided to keep the VIE structure as Shangchi Automobile may also produce traditional automobile products.

The VIE Agreements, entered into as of July 13, 2017 and renewed effective as of December 10, 2019 because of the Wangbo shareholder change, are described below and consist of an Exclusive Management Consulting and Technology Agreement, two Equity Pledge Agreements, two Exclusive Call Option Agreements, two Proxy Agreements and two Power of Attorney. As an overview, these agreements taken together are designed to allow Jiamu to manage the operations of Wangbo and to receive all of the net income of Wangbo in return.

The following is a summary of the common contractual arrangements that provide us with effective control of our VIE and that enable us to receive substantially all of the economic benefits from its operations.

### *Exclusive Management Consulting and Technology Agreement*

This Exclusive Management Consulting and Technology Agreement (the “Service Agreement”) was made and entered into by Jiamu and Wangbo. Pursuant to terms and condition of the Service Agreement, Wangbo appointed Jiamu as its exclusive service provider providing comprehensive management consulting, technical supporting, intellectual property license and other relevant services, including all services within the primary business of Wangbo and decided necessary from time to time by Jiamu, including, (1) management consulting, (2) technical support and (3) intellectual property. Wangbo agreed to accept consulting and services provided by Jiamu and not to acquire, directly or indirectly, the same or similar consulting and/or services as set in the Service Agreement from any third party, except with Jiamu’s prior written consent. Both parties agree that Jiamu can designate other parties to provide Wangbo with services and/or support stated in the Service Agreement.

### *Exclusive Call Option Agreement*

Two Exclusive Call Option Agreements (the “Call Option Agreements”) were entered. One was entered into by and among (a) Jiamu, (b) Wangbo and (c) Xinyang Wang, 95% shareholder of Wangbo. The other one was entered into by and among (a) Jiamu, (b) Wangbo and (c) Wangfeng Yan, 5% shareholder of Wangbo. Xinyang Wang and Wangfeng Yan are Wangbo Shareholders.

Pursuant to the Call Option Agreement and as permitted by the applicable laws of the People’s Republic of China, the parties have agreed that, at the exercise of such purchase option by Jiamu, (i) the Wangbo Shareholders will transfer all of their shares of Wangbo to Jiamu, or (ii) Wangbo will transfer its assets to Jiamu. To conduct the abovementioned share transfer and assets transfer, Wangbo and the Wangbo Shareholders irrevocably grant Jiamu an exclusive and unconditional asset purchase right and share purchase right, respectively.

### *Equity Pledge Agreement*

Two Equity Pledge Agreements (the “Pledge Agreements”) were made and entered into by and among Jiamu as pledgee, Wangbo, and each of the Wangbo shareholders. The Wangbo Shareholders pledged all current and future shares of Wangbo held by such Wangbo Shareholders to Jiamu, in order to guarantee that Wangbo and/or the Wangbo Shareholders will fulfill their respective responsibilities and obligations, and will ensure that Jiamu is able to obtain all rights and interests under the (a) Exclusive Management Consulting and Technology Agreement and any supplemental agreements (if any) between Jiamu and Wangbo; (b) Exclusive Call Option Agreements and any supplemental agreements (if any) among Jiamu, Wangbo and the Wangbo Shareholders; and (c) Proxy Agreements and any supplemental agreements (if any) among Jiamu, Wangbo and the Wangbo Shareholders.

### *Proxy Agreement*

Two Proxy Agreements (the “Proxy Agreements”) were made and entered by and among Jiamu as trustee, the Wangbo Shareholders as trustors and Wangbo. Under the Proxy Agreements, the Wangbo Shareholders irrevocably authorized Jiamu or its designated person (such as director or successor or liquidator of Jiamu) to solely exercise such Wangbo Shareholders’ voting rights in Wangbo under the law and bylaws of Wangbo as representative, including, without limitation (a) convene, convoke and attend shareholders’ meeting of Wangbo as representative of the Wangbo Shareholders; (b) submit proposals to Wangbo’s board of directors as representative of the Wangbo Shareholders; (c) vote on any matters to be deliberated at the shareholders’ meeting of Wangbo; (d) sign on minutes of Wangbo’s shareholder meetings; (e) exercise other voting rights of shareholders under Wangbo’s bylaws; (f) submit relevant documents to industrial and commercial registration offices and other government authorities concerned in order to performance or guarantee this contract as representative of the Wangbo Shareholders; and (g) sign share transfer agreements or other relevant documents, deal with official documents, registration, records or other procedures in order to enable share transfer under the Call Option Agreement take effect.

## Power of Attorney

The Powers of Attorney were made and entered into by Wangbo Shareholders and Mr. Wangfeng Yan. Pursuant to the Powers of Attorney, Xinyang Wang and Wangfeng Yan designated Mr. Zhengyu Wang to exercise their rights under the Proxy Agreements on behalf of them.

## Shenzhen Yimao New Energy Sales Co., Ltd. (Chinese name: 深圳益茂新能源销售有限公司)

On November 13, 2018, we established Shenzhen Yimao New Energy Sales Co., Ltd., a sales subsidiary of Shangchi Automobile.

## Disposal of Tantech Energy

On June 26, 2019, our wholly-owned subsidiary Tantech Bamboo entered a share transfer agreement to sell all of its shares in its wholly-owned subsidiary Tantech Energy to an unrelated third party. The consideration is RMB 6,500,000 (approximately US\$ 941,000). The Company completed the disposition process in July 2019.

## D. Property, Plants and Equipment

There is no private land ownership in China. Individuals and entities are permitted to acquire land use rights for specific purposes. We were granted land use rights for a place in Hangzhou city, which extend until 2015, and for our facilities in Lishui City, which extend until 2052. Following is a list of our properties:

Location	Address	Land Use Expiration/Lease		Ground Floor Area
		Term	Space	
Hangzhou, Zhejiang	Room 1106, No. 508 Wen San Road, West Lake District	June 7, 2051	357 m <sup>2</sup>	118 m <sup>2</sup>
Lishui, Zhejiang	No. 888 Tianning Street	December 18, 2052	15,208 m <sup>2</sup>	13,755 m <sup>2</sup>
Lishui, Zhejiang	Buildings No. 3 and No. 4, No. 10 Cen Shan Road, Shuige Industrial Zone	January 1, 2021 to December 31, 2021	12,904 m <sup>2</sup>	
Zhangjiagang, Jiangsu	No. 4 Bridge, 204 Way, Yeyu Town	August 10, 2020 to August 9, 2021	11,688 m <sup>2</sup>	4,515 m <sup>2</sup>
Shenzhen, Guangdong	No. 1108, Tianle Building, No. 1021, Buji Road, Luohu District	November 23, 2020 to November 22, 2021	54 m <sup>2</sup>	

Currently, our charcoal products are sold via our sales and distribution networks located in 19 cities throughout China. We do not own or lease locations in these cities. In addition, we have logistics centers in Lishui and relationships with third-party warehousing companies in Hangzhou, Jinan, Shanghai and Zhengzhou.

Fixed assets at our properties consist of office equipment at all of our locations and, at our Lishui properties, equipment for the carbonization and processing of charcoal, both for our household goods products and for our EDLC carbon. This equipment includes furnaces, boilers, mixers, kilns/ovens, jet mills, pulverizers, chemical analytic equipment, generators, briquette hydraulic powder molding machines, carbon activation and pickling tanks, belt dryers, air compressors, bamboo vinegar refining equipment, container production lines, hot acid/water washing equipment and automatic packing machines.

All or part of our real property and fixed assets are encumbered by secured loans from our creditors. Tantech Bamboo granted the encumbrances on our properties at the Tianning Industrial Zone facility. We have relocated our facilities from Tianning Street to a new, larger facility on Cen Shan Road. We have permitted Forasen Group to occupy and use 6,415.32 square meters of our Tianning Street real property as office and factory facilities. We have not historically charged Forasen Group for such usage, but plan to do so in the near future.



None of our property is affected by any environmental issues that may affect our use of the property, except we voluntarily stopped producing BBQ charcoal products due to stricter local environmental requirements. At present, our plans to further develop, expand or improve these properties are funded through proceeds from our equity financings and through our operating cash flows.

Shangchi Automobile, formerly Suzhou Yimao, has a manufacturing facility, located in Zhangjiagang City, Jiangsu Province, of 26,580 square meters.

Images of Shangchi Automobile's facilities are presented below:



Images of our facilities are presented below:



Carbon capacitance department workshops



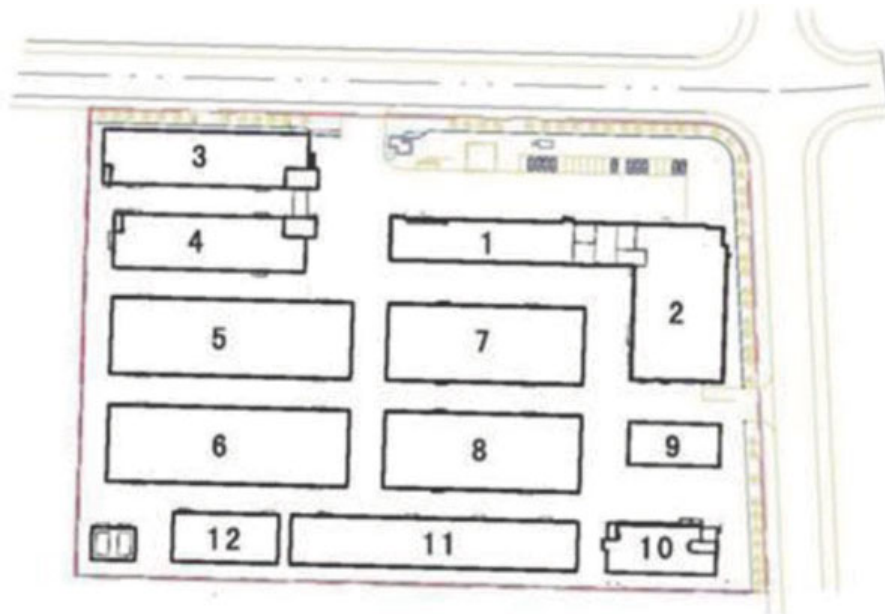
Cen Shan Road office building

### Productive Capacity

We currently produce all of our charcoal products at our Shuige Industrial Zone facility in Lishui. We have also installed the assembly lines for driverless street sweepers at our Shuige Industrial Zone facility. Our Tianning facility in Lishui are used for general office and administration purposes.

### Shuige Industrial Zone Facility

The following is a map of Shuige Industrial Zone facility, which displays the building numbers referred to in the below tables describing the productive uses of such facility. We rent the buildings according to our planned usage. Currently we are renting building No. 3 and No. 4 from Zhejiang Tantech Energy Tech Co., Ltd. for production, and Zhejiang Tantech Energy Tech Co., Ltd. permits us to keep using part of buildings No. 9 and 10 for free as employees' dorms.



**Non-production properties:**

Functional uses and location	Area (m <sup>2</sup> )	Actual used area (m <sup>2</sup> )	Reserved area (m <sup>2</sup> )	Space utilization	Reserved purpose
Office administration, training, product display (Fourth floor of building No. 3)	1,567	1,411	156	90%	Additional offices
Research and development center (Fourth and fifth floors of building No. 4)	2,510	1,757	753	70%	New product development team; street sweeper research and development center
Employee dorms (part of building Nos. 9 and 10)	7,182	7,182	None	100%	N/A

We currently have 1,567 m<sup>2</sup> for office administration, training and product display purposes, of which 1,411 m<sup>2</sup> are currently used. We have reserved 156 m<sup>2</sup> for additional office space.

Our research and development center consists of 2,510 m<sup>2</sup>, of which we use 1,757 m<sup>2</sup> at present (1,000 m<sup>2</sup> for street sweeper R&D and 753 m<sup>2</sup> for charcoal products R&D). We plan to use the additional space for our new product development team, but we do not have a specific time or plan in place for expanding such team.

**Production properties:**

Functional uses and location	Area (m <sup>2</sup> )	Actual used area (m <sup>2</sup> )	Reserved area (m <sup>2</sup> )	Space utilization	Current capacity <sup>(1)</sup>	Actual productivity (metric tons)	Capacity utilization	Reserved purpose
Barbecue charcoal production line (Third floor of building No. 3)	1,568	1,568	1,568	0%	300 metric tons	0	0% <sup>(2)</sup>	Potential usage in the future
Solid deodorant and purification product production line (Part of third floor and whole fourth floor of building No. 4)	1,975	1,580	395	80%	25.0 million packages	30.2 million packages	121% <sup>(3)</sup>	
Raw material warehouse for solid deodorant and purification product (Part of third floor of building No. 4)	875	875	0	100%	N/A	N/A	N/A	
Liquid household hygiene product and bamboo vinegar product production line (First floor of building No. 3)	1,567	1,254	313	80%	4,000 units	1,780 units	45.0%	Installation of equipment for production expansion
Raw material warehouse for liquid household hygiene product and bamboo vinegar product (Second floor of building No. 3)	1,567	1,567	0	100	N/A	N/A	N/A	
Street sweeper assembly lines (First floor of building No. 4)	1,375	1,375	0	100%	3,750 units	0	0% <sup>(4)</sup>	

(1) All of our production capacity rates assume 250 working days per year, 8 hours per day. We believe we can increase the number of days worked per year or number of hours worked per day to increase our production capacities if we choose to do so in the future.

(2) We stopped producing BBQ charcoal since 2019 due to the stricter environmental requirements by the local government.

(3) We exceeded 100% utilization rate by operating this production line in excess of the assumed capacity rates. If we choose to increase our production capacity in the future, we would need to replace existing production lines with more efficient lines or to expand our space, as we have not reserved space for additional production lines.

(4) As of the date of this report, we have not started assembling any driverless street sweepers at this location yet.

**ITEM 4A. UNRESOLVED STAFF COMMENTS**

None.

## ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this annual report on Form 20-F. In addition to historical consolidated financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this annual report on Form 20-F, particularly in “Risk Factors.”*

### A. Operating Results

#### Overview of Company

Historically, we have been a specialized manufacturer of bamboo charcoal based products with primary business focus in consumer products and low emission BBQ charcoal. After a series of re-organizations and strategic changes, through our operating subsidiaries and entities controlled through VIE agreements, we are now engaging in research, development, production and distribution of various charcoal products and vehicles, as well as trading bamboo charcoal products. We also have investments in mining exploration.

As of December 31, 2020, the Company had three reporting segments including consumer product segment, trading segment and electric vehicle segment.

Our consumer products include purification and deodorization products, household cleaning products and barbecue charcoals designed for domestic market. Purification and deodorization products and household cleaning products are sold under the brand name “Charcoal Doctor.” Purification and deodorization products include air purification products, deodorant products and bamboo vinegar. Household cleaning products include toilet cleaning products, kitchen cleaning products, personal care products and clothing detergent products. Consumer products accounted for 69.6%, 93.09% and 70.9% of the total revenue for the years ended December 31, 2020, 2019 and 2018, respectively.

The largest category of our consumer products is purification and deodorization products. Made from dry distilled carbonized bamboo, our purification and deodorization products have the ability to absorb harmful substances and air-borne odors, including benzene, formaldehyde, ammonia and carbon tetrachloride. These products also come in many shapes and varieties for a multitude of purposes including pillows, cushion insoles, wrist pads, clothes hangers and other products. Bamboo vinegar is an additive that can be used in food processing, medical and hygiene products and fertilizer. Although it currently only accounts for a small portion of our revenue, bamboo vinegar products are crucial for us to maintain close ties with the agricultural industry which we believe will be a key area for growth in the coming years. Cleaning products, including disinfectants, detergents, lotions, specialized soaps and toilet cleaners are relatively new in our consumer products but provide us another opportunity for growth. Purchased from third parties and sold through our distribution channel, barbecue charcoals designed for China’s domestic market have also been a key source of revenue for us in recent years.

Our trading business was mainly related to the sales of bamboo charcoal products. We are in the process to transform our business to focusing more on specialty electric vehicles (EVs) market. Our acquisition of Shangchi Automobile completed in the second quarter of 2017 and we recently established two subsidiaries in Zhejiang to shift our business strategy and focus on researching, developing and selling specialty EVs, such as electric driverless street sweepers. We are building our presence slowly and methodically, in order to maximize the impact of our R&D investments and technology advancements in specialty-use EVs rather than the more competitive, domestic general consumer EV market. We are confident in our position and remain fully committed to the EV segment, which we expect will be a key long-term growth driver for us. We expect our specialty EV business, especially the driverless street sweepers, will grow with the growing sensitivity cleaner environment and the demand for zero-emission vehicles, as well as the favorable government policies and support in terms of subsidies, grants and/or tax rebates.

If our expansions into this new businesses are not successful, our future results of operations and growth prospects may be materially and adversely affected. There could be trends, uncertainties or events that may have a material effect on our sales or revenue of consumer products. Our revenue from our trading segment is unlikely to increase significantly in future years. If we cannot increase our consumer products and electric vehicle revenues or find new business opportunities to continue the growth, our total revenue may be decreasing.

## **Factors Affecting Our Results of Operations**

### **Government Policy May Impact Our Business and Operating Results**

We have seen negative impact of unfavorable government policy regarding rebates upon our EV business in recent years. In addition, our business and operating results will be affected by China's overall economic growth and government policy. Unfavorable changes in government policies could affect the demand for our products and could materially and adversely affect our results of operations. Our bamboo charcoal based consumer products are currently not subject to the government restrictions, however, any future changes in the government's policy upon bamboo charcoal industry may have a negative effect on the supply of our raw materials.

### **Price Inelasticity of Raw Materials May Reduce Our Profit**

As a specialized manufacturer of bamboo charcoal based products, we rely on the continuous and stable supply of bamboo charcoal to ensure our operation and expansion. Although bamboo (and as a result bamboo charcoal) is a renewable supply, price inelasticity at any given time may increase the likelihood of bidding wars, resulting in an increase in raw material prices and thus reduce our profit. In addition, as we are competing based upon low price, we will risk losing customers by increasing our selling prices.

### **Competition in Consumer Product**

Our products face competition from other producers. In our consumer product segment, we face competition from a number of companies that have similar product portfolios. Many of such competitors' products are not bamboo-based; instead, we compete based on our products' functional use. Many such competitors are able to provide functionally similar products without relying on bamboo or bamboo charcoal components.

Although our Charcoal Doctor brand is one of the largest and most famous in the charcoal bag and bamboo charcoal market, the bamboo charcoal based consumer product industry is relatively fragmented and subject to relatively low barriers of entry.

Our Charcoal Doctor air purification products compete with products from charcoal-based competitors such as Zhejiang Maitanweng Ecological Development Co., Ltd., Zhejiang Jiejiegao Charcoal Industry Co., Ltd., and Quzhou Modern Charcoal Industry, Co., Ltd.

Our Charcoal Doctor toilet cleaner competitors include non-charcoal-based competitors such as SC Johnson & Son (Shanghai) Inc. (which makes the Mr. Muscle brand in China), Blue Moon Chinese Co., Ltd., Shanghai White Cat Group Ltd., Beijing Green Umbrella Chemical Co., Ltd. and Weilai (Guangzhou) Consumer products Co., Ltd.

Our BBQ charcoals also face competition from similar products that are not made of bamboo-based charcoal. For example, our Algold grand shisha charcoal competes with Shaxian Jinlu Charcoal Factory. While our shisha charcoal is a popular bamboo-charcoal based product, the competitor product is more popular but not bamboo-charcoal based. Our other key international competitors in this area include Haiwan International Trading Co., Ltd., Nanxiong Guizhu Charcoal Co., Ltd. and Shaoguan Libao Daily Sundry Co., Ltd. In addition to these companies, we compete domestically with Fujian Zhuhai Charcoal Co., Ltd., Jiangshan Green Charcoal Co., Ltd., Pujiang Fuli Bamboo & Wood Co., Ltd. and Sanhe Senyuan Charcoal Co., Ltd.

## **Some of Our Products are Subject to Cyclical Sales**

Our BBQ charcoal products and solid bamboo charcoal products are subject to cyclical sales. We typically see our highest sales of BBQ charcoal products in April and May and then again between August and October. The first peak marks our customers' preparation for the summer outdoor barbecue season, and the second peak is related to their purchase of our BBQ charcoal products for heating and cooking indoors in the colder months.

The peak season for our solid bamboo charcoal products is between October and November, and sales are lowest in February and March as a result of Chinese New Year, as consumers tend to purchase such products prior to the holiday, rather than after.

While we have seen higher sales near the end of the year for our liquid products, we believe our sales volume for such products is too low to consider such fluctuations cyclical. As such products are primarily for export, demand for our liquid products is most likely to be affected by seasonal and other fluctuations in the purchasing country rather than in China.

Notwithstanding the effects of seasonality, we believe the key drivers for us to maintain a competitive position in the market and positive financial performance continue to be brand recognition, product innovation and the application of new technology.

## **COVID-19**

Our operations are affected by the recent and ongoing outbreak of the COVID-19 which in March 2020, was declared a pandemic by the World Health Organization. The COVID-19 outbreak is causing lockdowns, travel restrictions, and closures of businesses. Our business has been negatively impacted by the COVID-19 outbreak to certain extent.

From late January 2020 to the middle of February 2020, the Company had to temporarily suspend our manufacturing activities due to government restrictions. During the temporary business closure period, our employees had very limited access to our manufacturing facilities and the shipping companies were not available and as a result, the Company experienced difficulty delivering our products to the customers on a timely basis. In addition, due to the COVID-19 outbreak, some of the customers or suppliers may experience financial distress, delay or default on their payments, reduce the scale of their business, or suffer disruptions in their business due to the outbreak. Any increased difficulty in collecting accounts receivable, delayed raw materials supply, bankruptcy of small and medium businesses, or early termination of agreements due to deterioration in economic conditions could negatively impact our results of operations.

As a result of negative impact of COVID-19, our revenues from consumer product segment decreased 35.8% for the year ended December 31, 2020 as compared to the same period of last year. This decrease was mainly because of interruption of the operation due to COVID-19 lockdowns at the beginning of fiscal 2020 and our decision to temporarily reduce our consumer product manufacturing activities in the remaining months of fiscal 2020. However, our sales for trading segment increased significantly due to demand surge for bamboo charcoal used for active charcoal masks, air purification and sanitation products.

As of the date of this report, the COVID-19 outbreak in China appears to have slowed down and most provinces and cities have resumed business activities under the guidance and support of the government. However, there is still significant uncertainty regarding the possibility of a second wave of infections, and the breadth and duration of business disruptions related to COVID-19, which could continue to have material impact to our operations.

## Results of Operation

The following table summarizes the selected results of our operation during the fiscal years ended December 31, 2020 and 2019, respectively, and provides information regarding the dollar and percentage increase or (decrease) during such years.

(All amounts, other than percentages, in thousands of U.S. dollars)

Statement of Operations Data:	2020		2019		Dollar (\$) Increase (Decrease)	Percentage Increase (Decrease)
	Dollars in thousands	As a percentage of sales revenue	Dollars in thousands	As a percentage of sales revenue		
Revenues	\$ 42,284	100.0%	\$ 49,230	100.0%	\$ (6,946)	(14.1)%
Cost of revenues	37,808	89.4%	43,253	87.9%	(5,445)	(12.6)%
Gross profit	4,476	10.6%	5,977	12.1%	(1,501)	(25.1)%
Operating expenses						
Selling expenses	977	2.3%	320	0.7%	657	205.3%
General and administrative expenses	955	2.3%	4,655	9.5%	(3,700)	(79.5)%
Impairment of goodwill	-	-%	8,481	17.2%	(8,481)	(100.0)%
Impairment of intangible asset	11,999	28.4%	1,103	2.2%	10,896	987.9%
Research and development expenses	890	2.1%	327	0.7%	563	172.2%
Total operating expenses	14,821	35.1%	14,886	30.2%	(65)	(0.4)%
Loss from operations	(10,345)	(24.5)%	(8,909)	(18.1)%	(1,436)	16.1%
Other income (expenses)						
Interest income	51	0.1%	53	0.1%	(2)	(3.8)%
Interest expense	(300)	(0.7)%	(443)	(0.9)%	143	(32.3)%
Other income (expense)	(40)	(0.1)%	4	0.0%	(44)	(1,100.0)%
Total other income (expense)	(289)	(0.7)%	(386)	(0.8)%	97	(25.1)%
Loss before income tax expense (credit)	(10,634)	(25.1)%	(9,295)	(18.9)%	(1,339)	14.4%
Income tax expense (credit)	(612)	(1.4)%	364	0.7%	(976)	(268.1)%
Net loss from continuing operations	(10,022)	(23.7)%	(9,659)	(19.6)%	(363)	3.8%
Net loss from discontinued operations	-	-%	(299)	(0.6)%	299	(100.0)%
Net loss	(10,022)	(23.7)%	(9,958)	(20.2)%	(64)	0.6%
Net loss attributable to common stockholders of Tantech Holdings Ltd	\$ (6,520)	(15.4)%	\$ (6,356)	(12.9)%	\$ (164)	2.6%



The following table summarizes the results of our operation during the fiscal years ended December 31, 2019 and 2018, respectively, and provides information regarding the dollar and percentage increase or (decrease) during such years.

(All amounts, other than percentages, in thousands of U.S. dollars)

Statement of Operations Data:	2019		2018		Dollar (\$) Increase (Decrease)	Percentage Increase (Decrease)
	Dollars in thousands	As a percentage of sales revenue	Dollars in thousands	As a percentage of sales revenue		
Revenues	\$ 49,230	100%	\$ 29,561	100%	\$ 19,669	66.5%
Cost of revenues	43,253	87.9%	21,532	72.8%	21,721	100.9%
Gross profit	5,977	12.1%	8,029	27.2%	(2,052)	(25.6)%
Operating expenses						
Selling expenses	320	0.7%	320	1.1%	-	0.0%
General and administrative expenses	4,655	9.5%	4,972	16.8%	(317)	(6.4)%
Impairment of goodwill	8,481	17.2%	-	-	8,481	100.0%
Impairment of intangible asset	1,103	2.2%	-	-	1,103	100.0%
Research and development expenses	327	0.7%	387	1.3%	(60)	(15.5)%
Total operating expenses	14,886	30.2%	5,679	19.2%	9,207	162.1%
Income (loss) from operations	(8,909)	(18.1)%	2,350	7.9%	(11,259)	(479.1)%
Other income (expenses)						
Interest income	53	0.1%	57	0.2%	(4)	(7.0)%
Interest expense	(443)	(0.9)%	(626)	(2.1)%	183	(29.2)%
Other income	4	0.0%	247	0.8%	(243)	(98.4)%
Total other income (expense)	(386)	(0.8)%	(322)	(1.1)%	(64)	19.9%
Income (loss) before income taxes	(9,295)	(18.9)%	2,028	6.9%	(11,323)	(558.3)%
Provision for income taxes	364	0.7%	1,031	3.5%	(667)	(64.7)%
Net income (loss) from continuing operations	(9,659)	(19.6)%	997	3.4%	(10,656)	(1,068.8)%
Net income (loss) from discontinued operations	(299)	(0.6)%	83	0.3%	(382)	(460.2)%
Net income (loss)	(9,958)	(20.2)%	1,080	3.7%	(11,038)	(1,022.0)%
Net income (loss) attributable to common stockholders of Tantech Holdings Ltd	\$ (6,356)	(12.9)%	\$ 1,977	6.7%	\$ (8,333)	(421.5)%

Revenues: revenues decreased by approximately \$6.9 million, or 14.1%, to approximately \$42.3 million in fiscal 2020 from approximately \$49.2 million in fiscal 2019. The decrease was mainly attributable to the significant decrease of our revenues from consumer products due to COVID-19. However, our revenue from trading segment increased due to higher demands for our bamboo charcoal used for active charcoal masks, air purification and sanitation products in order to combat COVID-19. We also had higher revenue from EV segment as compared to 2019.

Revenues: revenues increased by approximately \$19.6 million, or 66.5%, to approximately \$49.2 million in fiscal 2019 from approximately \$29.6 million in fiscal 2018. The increase was mainly attributable to the significant increase of our consumer products because of change of our sales strategy to lower the selling price in order to gain more market share. The revenue from our trading segment was decreased because we terminated sales cooperative agreement with one large sales channel which had negative impact of the sales in trading segment. We also had much less revenue from electric vehicle (“EV”) segment as compared to 2018 due to no active productions during fiscal 2019. We decided to pause EV productions as our costs would not be covered when we are not able to receive the government rebates to EV manufacturers timely because of the much stricter new government rebate policy issued in 2019.

### Consumer product segment

Our consumer product segment used to be the largest among our three segments. Our revenue from consumer products was primarily generated through the sales of our purification and deodorization products, household cleaning products and barbecue charcoals designed for the domestic market. Our consumer products are considered to be environmentally friendly not only because of the lifespan and fast growth rate of bamboo, but also the minimum waste in the process of producing our products. In addition, our products feature a high raw material utilization rate and have met the standards set for designation of “environmentally friendly” enterprises by the Chinese Society for Environmental Sciences. Moreover, our facilities have received ISO 14001:2004 certification, which reflects our focus on measuring and managing our environmental impact.

Revenues from consumer product segment decreased by \$16.4 million, or 35.8%, to \$29.4 million for fiscal 2020 from \$45.8 million for fiscal 2019. The gross margin of consumer product segment increased from 12.4% in fiscal 2019 to 13.0% in fiscal 2020. The decrease in our revenue from consumer product segment in fiscal 2020 was mainly because of interruption of the operation due to COVID-19 lockdowns at the beginning of fiscal 2020 and the decision to temporarily reduce our consumer product manufacturing activities in the remaining months of fiscal 2020.

Revenues from consumer product segment increased by \$23.4 million, or 104.5%, to \$45.8 million for fiscal 2019 from \$22.4 million for fiscal 2018. The gross margin of consumer product segment decreased from 35.9% in fiscal 2018 to 12.4% in fiscal 2019. The increase in our revenue from consumer product segment in 2019 was mainly because we changed our sales strategy to lower the sales price in order to increase the competitive advantages and increase the sales volume, which resulted in a much higher increase in sales volume but with lower profit margin.

### Trading segment

Revenue from our trading segment was approximately \$12.5 million in fiscal 2020, an increase of 269.3% from \$3.4 million in fiscal 2019. The significant increase was mainly because of the demand surge for our bamboo charcoal used for active charcoal masks, air purification and sanitation products in order to combat COVID-19. However, as a joint effort to conquer the virus, we charged lower gross margin for certain orders. As a result, the gross margin of trading segment decreased to 5.4% in fiscal 2020 from 32.8% in fiscal 2019.

Revenue from our trading segment was approximately \$3.4 million in fiscal 2019, a decrease of 10.5% from \$3.8 million in fiscal 2018. The decrease was mainly attributed to the fact that we terminated sales cooperative agreement with one large sales channel due to very low gross margin. However, even with decreased sales volume, we were able to sell for higher selling price which led to much higher gross profit and gross margin in our trading segment in fiscal 2019 as compared to fiscal 2018. The gross margin of trading segment increased from 12.9% in fiscal 2018 to 32.8% in fiscal 2019.

### Electric Vehicle (“EV”) segment

On July 12, 2017, the Company completed the acquisition of 70% of the equity interest of Suzhou E-Motors, which was renamed as Shangchi Automobile in 2019, a specialty electric vehicles and power batteries manufacturer based in Zhangjiagang City, Jiangsu Province, People’s Republic of China. The Company believes that the acquisition brings new advanced technologies and economic synergies in electric vehicle market and broaden the Company’s customer base and cross-selling opportunities.

The revenue for our EV segment was approximately \$0.4 million in fiscal 2020 with a negative gross margin. The revenue was mainly from the commission income in connection to 85 fuel midibuses and 59 electric specialty vehicles sold on behalf of other manufacturers. In addition, we also produced 10 fuel midibuses and exported them to Singapore to one customer in fiscal 2020.

The revenue for our EV segment was approximately \$0.03 million in fiscal 2019 with a negative gross margin. The Company sold 117 electronic logistic cars on behalf of other manufacturers in fiscal 2019.

The Company is eligible for a government manufacturing rebate on each qualifying electric bus sold. The government manufacturing rebates are typically provided to eligible alternative energy automobile manufacturers after sales are finalized and paperwork regarding the eligible mileages is submitted. However, due to the fact that we have been experiencing delays of government rebate processing time and reduction of the amount of government rebates on eligible vehicles, from fiscal 2019, we decided to temporarily slow down the EV productions as our costs would not be covered when we are not able to receive the government rebates to EV manufacturers timely because of the much stricter new government rebate policy issued in 2019.

*Cost of revenues:*

Our cost of revenues decreased by approximately \$5.4 million or 12.6% to approximately \$37.8 million in fiscal 2020 from approximately \$43.3 million in fiscal 2019. As a percentage of revenues, the cost of revenue increased to 89% in fiscal 2020 from 88% in fiscal 2019.

The increase in cost of revenues as a percentage of revenues in fiscal 2020 was mainly attributable to the increased cost of revenues from our trading segment due to higher sales volume with lower average selling price, offset by the lower sales volume from our consumer product segment.

Our cost of revenues increased by approximately \$21.7 million or 100.9% to approximately \$43.3 million in fiscal 2019 from approximately \$21.5 million in fiscal 2018. As a percentage of revenues, the cost of revenue increased to 88% in fiscal 2019 from 73% in fiscal 2018.

The increase in cost of revenues as a percentage of revenues in fiscal 2019 was mainly attributable to the increased cost of revenues from our consumer products segment due to higher sales volume with lower average selling price.

*Gross profit:*

Our gross profit decreased by approximately \$1.5 million, or 25.1% to approximately \$4.5 million in fiscal 2020 from approximately \$6.0 million in fiscal 2019. The gross profit margin was 10.6% in fiscal 2020, as compared to 12.1% in fiscal 2019. On segment basis, gross margins for consumer product, trading and EV segments were 13.0%, 5.4% and (3.0)%, respectively, for fiscal 2020, compared to 12.4%, 32.8% and (2,740.4)%, respectively, for fiscal 2019. The decrease in overall gross margin was primarily attributable to the lower selling price related to consumer product segment, compensated by much higher selling volume for our trading segment.

Our gross profit decreased by approximately \$2.0 million, or 25.6% to approximately \$6.0 million in fiscal 2019 from approximately \$8.0 million in fiscal 2018. The gross profit margin was 12.1% in fiscal 2019, as compared to 27.2% in fiscal 2018. On segment basis, gross margins for consumer product, trading and EV segments were 12.4%, 32.8% and (2,740.4)%, respectively, for fiscal 2019, compared to 35.9%, 12.9% and (14.7)%, respectively, for fiscal 2018. The significant decrease of gross margin for EV segment was because we only earned commission income in connection to the 117 electronic logistic cars sold on behalf of other vehicle manufacturers in fiscal 2019. The decrease in overall gross margin was primarily attributable to the lower selling price related to consumer product segment in fiscal 2019, compensated by higher selling price for our trading segment.

*Selling expenses:*

Selling expenses were approximately \$1.0 million in fiscal 2020 and approximately \$0.3 million in fiscal 2019. As a percentage of sales, our selling expenses were 2.3% of revenues in fiscal 2020, as compared to 0.7% of revenues in fiscal 2019. The increase was mainly due to higher promotion expenses in fiscal 2020 to reduce the negative impact caused by COVID-19.

Selling expenses were approximately \$0.3 million in fiscal 2019 and approximately \$0.3 million in fiscal 2018. As a percentage of sales, our selling expenses were 0.7% of revenues in fiscal 2019, as compared to 1.1% of revenues in fiscal 2018.

#### *General and administrative expenses:*

Our general and administrative expenses decreased by approximately \$3.7 million or 79.5%, to approximately \$0.9 million in fiscal 2020 from approximately \$4.6 million in fiscal 2019. As a percentage of revenues, general and administrative expenses decreased to 2.3% in fiscal 2020, compared to 9.5% in fiscal 2019. The decrease was primarily attributable to the following factor:

- The Company recorded a recovery of bad debt provision of approximately \$1.3 million in fiscal 2020 as a result of its increased collection efforts, compared to bad debt provision of approximately \$2.2 million in fiscal 2019.

Our general and administrative expenses decreased by approximately \$0.3 million or 6.4%, to approximately \$4.6 million in fiscal 2019 from approximately \$4.9 million in fiscal 2018. As a percentage of revenues, general and administrative expenses decreased to 9.5% in fiscal 2019, compared to 16.8% in fiscal 2018. The decrease was primarily attributable to the following factors:

- Property insurance expenses were decreased by approximately \$0.3 million as compared to fiscal 2018;
- Maintenance and repair expenses were decreased by approximately \$0.3 million as compared to fiscal 2018;
- The decreased consulting expenses of approximately \$0.3 million as compared to fiscal 2018.

#### *Impairment of goodwill*

In fiscal 2019, the Company wrote off the goodwill \$8.5 million which is mainly attributable to the acquisition of Shangchi Automobile in fiscal 2017 due to sluggish business operations and continuous losses incurred.

#### *Impairment of intangible asset*

For the years ended December 31, 2020 and 2019, the Company recorded an impairment of \$12.0 million and \$1.1 million for the licenses and permit resulted from the acquisition of Shangchi Automobile in fiscal 2017. Electric vehicle manufacturing license and patents on specialty electric vehicles resulted from the acquisition of Shangchi Automobile (formerly known as Suzhou E-Motors). During the year 2020, due to the impact of COVID-19, Shangchi Automobile was unable to maintain normal operations and all sales and marketing events were disrupted due to travel restrictions and other government regulations. While the spread of COVID-19 has gradually been under control in China, it could adversely affect the Company's business for the future. Shangchi Automobile has no immediate business plan to start manufacturing the electric vehicles. Management determined that the electric vehicle manufacturing license should be impaired. The Company recorded an impairment of \$11,998,606 for the year ended December 31, 2020. For the year ended December 31, 2019, the Company recorded an impairment of \$1,103,332 because the carrying amount was not recoverable and it exceeded its fair value based on the management's assessment for the electric vehicle manufacturing license.

#### *Research and development expenses*

Research and development expenses increased by \$0.6 million, or 172.2%, to \$0.9 million in fiscal 2020 from \$0.3 million in fiscal 2019. The increase was primarily due to more R&D activities during fiscal 2020 as we increased our R&D expenses for our EV segment, mainly on driverless street sweepers.

Research and development expenses decreased by \$0.1 million, or 15.5%, to \$0.3 million in fiscal 2019 from \$0.4 million in fiscal 2018. The decrease was primarily due to less R&D activities during fiscal 2019 as we had limited activities for our electric vehicle segment.

#### *Total operating expenses*

Total operating expenses decreased by \$0.1 million, or 0.4%, to \$14.8 million for fiscal 2020 from \$14.9 million in fiscal 2019, which was mainly due to a decrease of approximately \$8.5 million in impairment of goodwill and approximately \$3.7 million in general and administrative expenses, offset by an increase of approximately \$10.9 million in impairment of intangible asset for fiscal 2020 compared to fiscal 2019.

Total operating expenses increased by \$9.2 million, or 162.1%, to \$14.9 million for fiscal 2019 from \$5.7 million in fiscal 2018, which was mainly due to an increase of approximately \$9.6 million in impairment of goodwill and intangible asset for fiscal 2019 compared to fiscal 2018.

#### *Interest expenses*

Our interest expenses decreased by approximately \$0.1 million, or 32.3% to approximately \$0.3 million in fiscal 2020, from approximately \$0.4 million in fiscal 2019. As the outstanding days of short-term bank loans in fiscal 2020 are less than that in fiscal 2019, we had less interest expenses accrued for bank loans in fiscal 2020 compared to fiscal 2019.

Our interest expenses decreased by approximately \$0.2 million, or 29.2% to approximately \$0.4 million in fiscal 2019, from approximately \$0.6 million in fiscal 2018. As the outstanding days of short-term bank loans in fiscal 2019 are less than that in fiscal 2018, we had less interest expenses accrued for bank loans in fiscal 2019 compared to fiscal 2018.

#### *Other expense (income)*

Other expense was approximately \$0.04 million in fiscal 2020 and \$nil million in fiscal 2019. Other expense was primarily related to the disposal of property, plant and equipment.

Other income was \$nil in fiscal 2019 and approximately \$0.2 million in fiscal 2018. Other income generated in fiscal 2018 was primarily related to the consulting fee that we charged to a third-party company using our patent in its production of doors with air treatment functionality.

#### *Loss (income) before income taxes from continuing operations*

Our loss before income tax from continuing operations was approximately \$10.6 million in fiscal 2020, an increase of approximately \$1.3 million compared to loss of approximately \$9.3 million in fiscal 2019. The increase was primarily attributable to a decrease of approximately \$1.5 million in gross profit compared to fiscal 2019.

Our loss before income tax from continuing operations was approximately \$9.3 million in fiscal 2019, an increase in loss of approximately \$11.3 million compared to income of approximately \$2.0 million in fiscal 2018. The increase was primarily attributable to an increase of approximately 9.2 million in operation expenses compared to fiscal 2018.

#### *Income taxes expense (benefit)*

Our income taxes benefit was approximately \$0.6 million in fiscal 2020, a decrease of approximately \$1.0 million or 268.1% from provision for income taxes approximately \$0.4 million in fiscal 2019. The decreased income tax provision was in line with decreased taxable income from continuing operations in fiscal 2020 comparing to fiscal 2019.

Our provision for income taxes was approximately \$0.4 million in fiscal 2019, a decrease of approximately \$0.7 million or 64.7% from approximately \$1.0 million in fiscal 2018. The decrease was mainly due to significant losses before income taxes from continuing operations in fiscal 2019 comparing to fiscal 2018.

#### *Net income (loss) from discontinued operations*

As of December 31, 2019, we closed Tantech Babiku and Lishui Zhongzhu, and we also sold Tantech Energy because of business strategy change. The net loss for these discontinued operations was approximately \$0.3 million in fiscal 2019 compared to a net income approximately \$0.1 million in fiscal 2018. There was no discontinued operation in fiscal 2020.

### *Net loss attributable to common stockholders*

Our net loss attributable to common stockholders was approximately \$6.5 million in fiscal 2020, an increase of approximately \$0.2 million from approximately \$6.3 million in fiscal 2019. The increase of net loss was attributable to the factors described above.

Our net loss attributable to common stockholders was approximately \$6.3 million in fiscal 2019, a decrease of approximately \$8.3 million from net income attributable to common stockholders approximately \$2.0 million in fiscal 2018. The decrease was attributable to the factors described above.

## **B. Liquidity and Capital Resources**

We are a holding company incorporated in the British Virgin Islands. We may need dividends and other distributions on equity from our PRC subsidiaries to satisfy our liquidity requirements. Current PRC regulations permit our PRC subsidiaries to pay dividends to us only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In addition, our PRC subsidiaries are required to set aside at least 10% of their respective accumulated profits each year, if any, to fund certain reserve funds until the total amount set aside reaches 50% of their respective registered capital. Our PRC subsidiaries may also allocate a portion of its after-tax profits based on PRC accounting standards to employee welfare and bonus funds at their discretion. These reserves are not distributable as cash dividends.

We have relied on direct payments of expenses by our subsidiaries (which generate revenues), to meet our obligations to date.

For the years ended December 31, 2020 and 2019, the Company had a significant decrease in net income. In addition, the Company closed Tantech Babiku and Lishui Zhongzhu, and sold Tantech Energy due to business strategic changes during the years ended December 31, 2019 and 2018. All of these events had significant impact on the Company's operations.

For its consumer product sector, the Company significantly cut its sales to supermarket customers because of long-aged accounts receivable from these supermarket customers. In addition, as a result of negative impact of COVID-19, the Company reduce its consumer product manufacturing activities in fiscal 2020. Meanwhile, the EV segment is also experiencing delays of government rebate processing time and reduction of the amount of government rebates on eligible vehicles.

Due to a successful equity financing which resulted in net proceeds of \$9.1 million in November 2020, as well the registered direct offering in September 2017 which resulted in net proceeds of \$5.6 million, the Company had approximately \$37.1 million cash on hand as of December 31, 2020. Although the Company maintains a positive working capital as of December 31, 2020 and generated positive cash flows from its operations for the years ended December 31, 2020 and 2019, the future operations of the Company depend on whether or not the Company can successfully collect its accounts receivable and utilize its advances, as well as how the change of government policies affect its EV business. As of December 31, 2020 and 2019, the Company had a short-term loan balance of approximately \$5.6 million and \$6.9 million, respectively. In addition, the Company had bank acceptance notes payable balance of approximately \$1.8 million and \$0.2 million as of December 31, 2020 and 2019, respectively. Any failure to renew these bank borrowings upon their maturities could have an adverse impact on the Company's operations.

The Company currently plans to fund its operations mainly through cash flow from its operations, renewal of bank borrowings, additional equity financing and the continuing financial support by its shareholders and its affiliates controlled by its principal shareholder, if necessary, in the near future to ensure sufficient working capital. The Company has implemented a stricter policy on sales to supermarkets and less credible customers and continues to improve its collection efforts on accounts with outstanding balances. The Company is actively working with other customers and suppliers and expects to fully collect or utilize the rest of prepayment balance in 2021.

The Company is also working closely with the local government to speed up the collection process of the outstanding government rebate balance in 2020. Although the Company is currently not generating net income from its EV segment, it has been focusing on reducing the costs and expenses and developing other non-rebate EV products. During the year ended December 31, 2020, the Company established two subsidiaries in Zhejiang to focus on development and manufacturing of electric vehicles, especially driverless street sweepers. The Company plans to fund this segment through additional private placement and continued support from other subsidiary companies. The principal shareholder of the Company, along with an affiliated entity, Forasen Group, has agreed to provide financial support to the Company whenever necessary.

Based on its current operating plan, management believes that the above-mentioned measures collectively will provide sufficient liquidity for the Company to meet its future liquidity and capital requirements for at least next twelve months from the date of this report.

Further, although instruments governing the current debts incurred by our PRC subsidiaries do not have restrictions on their abilities to pay dividend or make other payments to us, the lender may impose such restriction in the future. As a result, our ability to distribute dividends largely depends on earnings from our PRC subsidiaries and its ability to pay dividends out of its earnings. We cannot assure you that our PRC subsidiaries will generate sufficient earnings and cash flows in the near future to pay dividends or otherwise distribute sufficient funds to enable us to meet our obligations, pay interest and expenses or declare dividends.

As of December 31, 2020, we had cash and restricted cash of approximately \$37.3 million. Our current assets were approximately \$81.9 million and our current liabilities were approximately \$16.8 million, which resulted in a current ratio of 4.9:1, increased from 3.6:1 in fiscal 2019. Total stockholders' equity as of December 31, 2020 was approximately \$99.5 million.

Our accounts receivable turnover in days were 319 days and 269 days for fiscal 2020 and 2019, respectively. Although we typically do not grant special payment terms to our customers, some of our customers, who are large retailers and wholesale chains, tend to require longer payment terms but are unlikely to default. The instances of slow payments and long-aging receivables may have negative impact on our short-term operating cash flow and future liquidity. We periodically review our accounts receivable and allowance level in order to ensure our methodology used to determine allowances is reasonable and accrued additional allowances if necessary. We have recently put a lot of efforts into accounts receivable collection through tightening our customer credit policy and strengthening monitoring of uncollected receivables. If the Company has difficulty collecting, the following steps will be taken, including but not limited to: cease any additional shipments to the customers, visit the customers to request payments on past due invoices, and if necessary, take legal recourse. If all of these steps are unsuccessful, management will determine whether or not the receivable will be reserved or written off.

For the accounts receivable from continuing operations, the Company provided bad debt allowance of \$3.7 million against the aged accounts receivable balances. Subsequent to December 31, 2020 and through April 14, 2021, the Company collected \$6.4 million or 19% of the accounts receivable balance from continuing businesses as of December 31, 2020.

As of December 31, 2020 and 2019, the Company had significant advances to suppliers of approximately \$6.9 million and \$13.1 million, respectively. In order to ensure a steady supply of raw materials, the Company is required from time to time to make cash advances when placing its purchase orders. Due to recent tighten environmental protection policies in China, many smaller suppliers have gone out of business. The Company monitors the advances to suppliers account and the allowance level periodically in order to ensure the related allowance is reasonable. We have since enhanced our collections or realization on advance to suppliers through tightening vendor prepayment policy and strengthening monitoring of unrealized prepayment. If the Company has difficulty collecting, the following steps will be taken: cease additional purchases from these suppliers, visit the suppliers to request return of the prepayments promptly, and if necessary, take legal recourse. If all of these steps are unsuccessful, management will determine whether or not the prepayment will be reserved or written off.

The following table sets forth summary of our cash flows for the fiscal years indicated:

(All amounts in thousands of U.S. dollars)

	2020	2019	2018
Net cash provided by operating activities	\$ 14,171	\$ 14,696	\$ 14,665
Net cash used in investing activities	(123)	(5,930)	(17,995)
Net cash provided by (used in) financing activities	8,940	(5,460)	(810)
Effect of exchange rate changes on cash	1,705	(530)	391
Net increase (decrease) in cash, restricted cash and cash equivalents	24,693	2,776	(3,749)
Cash, restricted cash and cash equivalents, beginning of year	12,646	9,870	13,619
Cash, restricted cash and cash equivalents, end of year	\$ 37,339	\$ 12,646	\$ 9,870

### Operating Activities

Net cash provided by operating activities was approximately \$14.2 million in fiscal 2020, compared to cash provided by operating activities of approximately \$14.7 million in fiscal 2019. The change in net cash provided by operating activities was primarily attributable to the following factors:

- Non cash adjustment of \$10.0 million, which primarily consisted of \$12.0 million impairment of intangible assets, offset by a reduction of \$1.8 million in deferred tax liabilities;
- A reduction of \$8.0 million in account receivable due to collection efforts and wrote off some long-aged accounts receivable;
- A reduction of \$7.1 million in advance to supplier due to receipt of materials and wrote off some long-aged supplier's advances;
- A reduction of \$2.4 million on manufacturing rebate receivable due to collection;

Offset by the impacts from the following factors:

- The Company had a net loss of \$10.0 million in fiscal 2020, increased by \$0.4 million compared to fiscal 2019;
- A decrease of \$3.8 million in customer deposits received in fiscal 2019.

Net cash provided by operating activities was approximately \$14.7 million in fiscal 2019, compared to cash provided by operating activities of approximately \$14.7 million in fiscal 2018. The change in net cash provided by operating activities was primarily attributable to the following factors:

- Non cash adjustment of \$13.7 million, which primarily consisted of \$9.6 million impairment of goodwill and intangible assets, \$1.3 million bad debt provision for accounts receivable and \$1.0 million inventory provision;
- The company received \$9.0 million from disposition subsidiary;
- An increase of \$6.2 million in customer deposits received for future customer orders;
- A reduction of \$1.6 million on manufacturing rebate receivable due to collection;
- Net cash flow provided by operation activities from discontinued operation amounted to \$4.6 million;

Offset by the impacts from the following factors:

- An increase of \$9.9 million in accounts receivable due to more sales in fiscal 2019;
- The Company had a net loss of \$9.6 million in fiscal 2019, decreased by \$10.7 million compared to fiscal 2018.



## Investing Activities

Net cash used in investing activities was \$0.1 million for fiscal 2020, compared to net cash used in investing activities of \$5.9 million in fiscal 2019. The net cash used in investing activities in fiscal 2020 was primarily attributable to \$0.1 million paid for purchase of property, plant and equipment.

Net cash used in investing activities was \$5.9 million for fiscal 2019, compared to net cash used in investing activities of \$18.0 million in fiscal 2018. The decrease in net cash used in investing activities in fiscal 2019 was primarily attributable to the payment of \$6.7 million to acquire 18% of the equity interest of Fuquan Chengwang, a wholly-owned subsidiary of Jingning Zhonggang. The net cash used in investing activities in fiscal 2018 was primarily attributable to the payment of \$17.4 million to acquire 18% equity interest in Libo Haokun Stone Co., Ltd.

## Financing Activities

Net cash provided by financing activities was \$8.9 million for fiscal 2020, compared to net cash used in financing activities of \$5.5 million for fiscal 2019. Net cash provided by financing activities for fiscal 2020 was primarily due to an offering of 6,060,608 common shares at a price of \$1.65 per share, which resulted in net proceeds of approximately \$9.1 million. In addition, we also had net proceeds of approximately \$1.4 million from bank acceptance note payable, offset by net repayment of \$1.7 million of bank loans.

Net cash used in financing activities was \$5.5 million for fiscal 2019, compared to net cash used in financing activities of \$0.8 million for fiscal 2018. Net cash used in financing activities for fiscal 2019 primarily due to net repayment of approximately \$2.8 million for third party, repayment of approximately \$1.8 million for bank acceptance notes payable, and net repayment of \$0.4 million of related parties.

Our primary source of cash is currently generated from the sales of our products and bank borrowings. In the coming years, we will be looking to other sources, such as raising additional capital by issuing shares of our common stock to meet our cash needs. While facing uncertainties in regards to the size and timing of capital raise, we expect to be able to meet our working capital and capital expenditure requirements by using our cash on hand, cash flows from operations and bank borrowings in the next twelve months.

## Loan Facilities

As of December 31, 2020, the balance of our bank loans was approximately \$5.6 million. Our outstanding balance of bank acceptance notes was \$1.8 million as of December 31, 2020.

As of December 31, 2020, the details of all our short-term bank loans are as follow:

No.	Type	Contracting Party	Valid Date	Duration	Amount
1	Short-term bank loan	Shanghai Pudong Development Bank	April 27, 2020	12 months	\$ 2,606,100
2	Short-term bank loan	Bank of China	July 7, 2020	12 months	\$ 2,958,690

On April 27, 2020, Tantech Bamboo entered into a short-term loan agreement with Shanghai Pudong Development Bank (Lishui Branch) to borrow approximately \$2.9 million (RMB 19 million) for one year with fixed annual interest rate of 4.785%. The purpose of the loan is to fund working capital needs. The loan was guaranteed by three related parties, Zhengyu Wang, Chairman of the Board and his wife, Yefang Zhang and Forasen Group Co., Ltd., a company owned by Zhengyu Wang and Yefang Zhang. The loan was also collateralized by building and land use right of Tantech Energy with maximum guaranteed amount up to approximately \$4.5 million (RMB29,250,000). The Company repaid \$0.3 million (RMB2.0 million) as required in fiscal year 2020. The Company further repaid \$0.2 million (RMB 1.0 million) in February 2021 and \$2.5 million (RMB 16 million) in April 2021.

On July 9, 2020, Tantech Charcoal entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow approximately \$3.0 million (RMB 19.3 million) for one year with annual interest rate of 4.85%. The purpose of the loan was for purchasing bamboo charcoal materials. The loan was collateralized by building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$4.0 million (RMB25,960,000). The loan was also guaranteed by two related parties, Lishui Jiuanju Commercial Trade Co., Ltd., and Forasen Group Co., Ltd., one third party, Zhejiang Meifeng Tea Industry Co., Ltd., and three individual related parties, Zhengyu Wang, Chairman of the Board of the Company, his wife, Yefang Zhang, and his relative, Aihong Wang.

During the year ended December 31, 2020, the Company also borrowed and repaid the following loans:

On January 6, 2020, Tantech Bamboo entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow approximately \$2.7 million (RMB 17.78 million) for six months with annual interest rate of 5.88%. The purpose of the loan was to fund working capital needs. The loan was collateralized by building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$4.0 million (RMB25,960,000). The loan was also guaranteed by three related parties, Zhengyu Wang, Chairman of the Board of the Company and his wife, Yefang Zhang and Lishui Juanju Trading Co., Ltd., the president of which was also CEO of the Company. The Company repaid the loan upon maturity.

On January 6, 2020, Tantech Charcoal entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow approximately \$1.5 million (RMB 10 million) for six months with annual interest rate of 4%. The purpose of the loan was for working capital needs. The loan was guaranteed by Tantech Bamboo, two individual related parties, Zhengyu Wang and Yefang Zhang and a third party, Zhejiang Meifeng Tea Industry Co., Ltd. The loan was also collateralized by two properties owned by Zhengyu Wang and Yefang Zhang and building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$1.5 million (RMB 10 million). The Company repaid the loan upon maturity.

Although we currently do not have any material unused sources of liquidity, giving effect to the foregoing bank loans and other financing activities, we believe that our currently available working capital should be adequate to sustain our operations at our current levels through at least for the next twelve months. We will consider additional borrowing or public offering based on our working capital needs and capital expenditure requirements. There is no seasonality of our borrowing activities.

### Statutory Reserves

Under PRC regulations, all our subsidiaries in the PRC may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC GAAP. In addition, these companies are required to set aside at least 10% of their after-tax net profits each year, if any, to fund the statutory reserves until the balance of the reserves reaches 50% of their registered capital. The statutory reserves are not distributable in the form of cash dividends to the Company and can be used to make up cumulative prior year losses.

Restrictions on net assets also include the conversion of local currency into foreign currencies, tax withholding obligations on dividend distributions, the need to obtain State Administration of Foreign Exchange approval for loans to a non-PRC consolidated entity. We did not have these restrictions on our net assets as of December 31, 2020 and 2019. We are also a party to certain debt agreements that are secured with pledges on our real property in Tianning and Shuige Industrial Zone facility located in Lishui, China. But such debt agreements do not restrict our net assets and instead only impose restrictions on the pledged property.

The following table provides the amount of our statutory reserves, the amount of restricted net assets, consolidated net assets, and the amount of restricted net assets as a percentage of consolidated net assets, as of December 31, 2020 and 2019.

	As of December 31, 2020	As of December 31, 2019
Statutory Reserves	\$ 6,437,506	\$ 6,379,276
Total Restricted Net Assets	\$ 6,437,506	\$ 6,379,276
Consolidated Net Assets	\$ 99,491,388	\$ 94,532,261
Restricted Net Assets as Percentage of Consolidated Net Assets	6.5%	6.7%

Total restricted net assets accounted for approximately 6.5% of our consolidated net assets as of December 31, 2020. As our subsidiaries usually set aside only 10% of after-tax net profits each year to fund the statutory reserves and are not required to fund the statutory reserves when they incur losses, we believe the potential impact of such restricted net assets on our liquidity is limited.

Total restricted net assets accounted for approximately 6.7% of our consolidated net assets as of December 31, 2019. As our subsidiaries usually set aside only 10% of after-tax net profits each year to fund the statutory reserves and are not required to fund the statutory reserves when they incur losses, we believe the potential impact of such restricted net assets on our liquidity is limited.

### **Capital Expenditures**

We had capital expenditures of \$0.1 million, \$6.8 million and \$18.3 million for the years ended December 31, 2020, 2019 and 2018, respectively for the addition and renovation of our workshops and office buildings, purchasing of equipment in connection with our business activities and purchasing of long-term investment.

We expect that our capital expenditures will increase in the future as our business continues to develop and expand. We have used cash generated from our subsidiaries' operations to fund our capital commitments in the past and anticipate using such funds and proceeds received from our initial public offering, our secondary offering and other sources to fund capital expenditure commitments in the future.

### **E. Off-balance Sheet Arrangements**

Except for the above-mentioned guaranty, we have not entered into any other financial guarantees or other commitments to guarantee the payment obligations of any third parties. In addition, we have not entered into any derivative contracts that are indexed to our own shares and classified as shareholder's equity, or that are not reflected in our consolidated financial statements.

### **Critical Accounting Policies**

We prepare our financial statements in conformity with accounting principles generally accepted by the United States of America ("U.S. GAAP"), which requires us to make judgments, estimates and assumptions that affect our reported amount of assets, liabilities, revenue, costs and expenses, and any related disclosures. Although there was no material changes made to the accounting estimates and assumptions in the past three years, we continually evaluate these estimates and assumptions based on the most recently available information, our own historical experience and various other assumptions that we believe to be reasonable under the circumstances. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from our expectations as a result of changes in our estimates.

We believe that the following accounting policies involve a higher degree of judgment and complexity in their application and require us to make significant accounting estimates. Accordingly, these are the policies we believe are the most critical to understanding and evaluating our consolidated financial condition and results of operations.

#### Discontinued operation

In accordance with ASU No. 2014-08, Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity, a disposal of a component of an entity or a group of components of an entity is required to be reported as discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results when the components of an entity meets the criteria in paragraph 205-20-45-1E to be classified as held for sale. When all of the criteria to be classified as held for sale are met, including management, having the authority to approve the action, commits to a plan to sell the entity, the major current assets, other assets, current liabilities, and noncurrent liabilities shall be reported as components of total assets and liabilities separate from those balances of the continuing operations. At the same time, the results of all discontinued operations (which we presented as operations to be disposed and operations disposed), less applicable income taxes (benefit), shall be reported as components of net income (loss) separate from the net income (loss) of continuing operations in accordance with ASC 205-20-45.

## Use of Estimates

In preparing the consolidated financial statements in conformity with US GAAP, management makes estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the dates of the consolidated financial statements, as well as the reported amounts of revenues and expenses during the reporting year. Significant items subject to such estimates and assumptions include the fair value estimates used in the purchase price allocation, the useful lives of property and equipment; allowances pertaining to the allowance for doubtful accounts and advances to related parties and suppliers; the valuation of inventories; and the realizability of deferred tax assets.

## Revenue Recognition

The Company adopted ASC Topic 606 Revenue from Contracts with Customers (“ASC 606”) on January 1, 2018 using the modified retrospective approach. Revenues for the year ended December 31, 2019 were presented under ASC 606, and revenues for the years ended December 31, 2017 were not adjusted and continue to be presented under ASC Topic 605, Revenue Recognition. There is no adjustment to the opening balance of retained earnings at January 1, 2018 since there was no change to the timing and pattern of revenue recognition upon adoption of ASC 606. Under ASC 606, revenue is recognized when control of promised goods or services is transferred to the Company’s customers in an amount of consideration to which an entity expects to be entitled to in exchange for those goods or services.

The Company’s revenues are primarily derived from the following sources:

**Sales of products:** The Company recognizes sales revenue, net of sales taxes and estimated sales returns, at the time the product is delivered to the customer and control is transferred (point of sale).

**Commission income:** The Company acts as an agent without assuming the risks and rewards of ownership of the goods and reports the revenue on a net basis. Revenue is recognized based on the completion of the contracted service.

**Government manufacturing rebate income:** The Company is eligible for a government manufacturing rebate on each qualifying electric bus sold. The government manufacturing rebates are recognized as part of revenue when sales are finalized, amount of rebates can be reasonably estimated and collection is assured. The collectability of rebates can be assured as long as the sales are deemed qualifying based on the criteria set by the government.

Revenue is reported net of all value added taxes. The Company does not routinely permit customers to return products and historically, customer returns have been immaterial.

## Goodwill

Goodwill represents the excess of the consideration over the fair value of the net assets acquired at the date of acquisition. Goodwill is not amortized but rather tested for impairment at least annually at the reporting unit level by applying a fair-value based test in accordance with accounting and disclosure requirements for goodwill and other indefinite-lived intangible assets. This test is performed by management annually or more frequently if the Company believes impairment indicators are present. The Company has the option to assess qualitative factors first to determine whether it is necessary to perform the two-step test in accordance with ASC 350-20, Intangibles - Goodwill and Other. If the Company believes, as a result of the qualitative assessment, that it is more-likely-than-not that the fair value of the reporting unit is less than its carrying amount, the two-step quantitative impairment test described above is required. Otherwise, no further testing is required. In the qualitative assessment, the Company considers primary factors such as industry and market considerations, overall financial performance of the reporting unit, and other specific information related to the operations.

In performing the two-step quantitative impairment test, the first step compares the carrying amount of the reporting unit to the fair value of the reporting unit based on estimated fair value using the income approach. If the fair value of the reporting unit exceeds the carrying value of the reporting unit, goodwill is not impaired and the Company is not required to perform further testing. If the carrying value of the reporting unit exceeds the fair value of the reporting unit, then the Company must perform the second step of the impairment test in order to determine the implied fair value of the reporting unit’s goodwill. The fair value of the reporting unit is allocated to its assets and liabilities in a manner similar to a purchase price allocation in order to determine the implied fair value of the reporting unit’s goodwill. If the carrying amount of the goodwill is greater than its implied fair value, the excess is recognized as an impairment loss in general and administrative expenses.

## Long term investments

The Company accounts for investment in equity investees over which it has significant influence but does not own a majority of the equity interest or lack of control using the equity method. For investment in equity investees over which the Company does not have significant influence or the underlying shares the Company invested in are not considered in-substance common stock and have no readily determinable fair value, the cost method accounting is applied.

The Company records the equity method investments at historical cost and subsequently adjusts the carrying amount each period for share of the earnings or losses of the investee and other adjustments required by the equity method of accounting. Dividends received from the equity method investments are recorded as reductions in the cost of such investments. The Company records the cost method investments at historical cost and subsequently record any dividends received from the net accumulated earnings of the investee as income. Dividends received in excess of earnings are considered a return of investment and are recorded as reductions in the cost of the investments.

Investment in equity investees are evaluated for impairment when facts or circumstances indicate that the fair value of the investment is less than its carrying value. An impairment is recognized when a decline in fair value is determined to be other-than-temporary. The Group reviews several factors to determine whether a loss is other-than-temporary. These factors include, but are not limited to, the: (i) nature of the investment; (ii) cause and duration of the impairment; (iii) extent to which fair value is less than cost; (iv) financial condition and near term prospects of the investments; and (v) ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value.

#### Impairment of Long-Lived Assets

The Company evaluates its long-lived assets for impairment whenever events or changes in circumstances, such as a significant adverse change to market conditions that will impact the future use of the assets, indicate that the carrying amount of an asset may not be fully recoverable. When these events occur, the Company evaluates the recoverability of long-lived assets by comparing the carrying amount of the assets to the future undiscounted cash flows expected to result from the use of the assets and their eventual disposition. If the sum of the expected undiscounted cash flows is less than the carrying amount of the assets, the Company recognizes an impairment loss based on the excess of the carrying amount of the assets over their fair value. Fair value is generally determined by discounting the cash flows expected to be generated by the assets, when the market prices are not readily available.

#### Recent accounting pronouncements

The Company considers the applicability and impact of all accounting standards updates (“ASUs”). Management periodically reviews new accounting standards that are issued.

In August 2018, the FASB Accounting Standards Board issued ASU No. 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework Changes to the Disclosure Requirements for Fair Value Measurement” (“ASU 2018-13”). ASU 2018-13 modifies the disclosure requirements on fair value measurements. ASU 2018-13 is effective for public entities for fiscal years beginning after December 15, 2019, with early adoption permitted for any removed or modified disclosures. The removed and modified disclosures will be adopted on a retrospective basis and the new disclosures will be adopted on a prospective basis. The Company adopted this guidance in fiscal 2020 and this guidance did not have a material impact on the consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, “Income Taxes” (Topic 740): Simplifying the Accounting for Income Taxes (“ASU 2019-12”). ASU 2019-12 will simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. For public business entities, the amendments in this Update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. The Company does not expect that the requirements of ASU 2019-12 will have a material impact on its consolidated financial statements.

In January 2020, the FASB issued ASU 2020-01, Investments - Equity Securities (Topic 321), Investments - Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815) (“ASU 2020-01”), which is intended to clarify the interaction of the accounting for equity securities under Topic 321 and investments accounted for under the equity method of accounting in Topic 323 and the accounting for certain forward contracts and purchased options accounted for under Topic 815. ASU 2020-01 is effective for the Company beginning January 1, 2021. The Company is currently evaluating the effect of adopting this ASU on the Group’s financial statements.

Except for the above-mentioned pronouncements, there are no new recent issued accounting standards that will have material impact on the consolidated financial position, statements of operations and cash flows.

## F. Tabular Disclosure of Contractual Obligations

Below is a table setting forth all of our contractual obligations as of December 31, 2020, which consists of our short-term loan agreements, loans from third parties and due to related parties:

Contractual Obligations	Payment Due by Period				
	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Short-Term Debt Obligations	\$ 5,564,790	\$ 5,564,790	\$ -	\$ -	\$ -
Bank Acceptance Notes Payable	1,753,109	1,753,109	-	-	-
Due to third parties	306,600	306,600	-	-	-
Due to related parties	2,019,087	2,019,087	-	-	-
<b>Total</b>	<b>\$ 9,643,586</b>	<b>\$ 9,643,586</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

## G. Safe Harbor

See “Special Note Regarding Forward-Looking Statements.”

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table provides information regarding our executive officers and directors as of April 22, 2021:

Name	Age	Position(s)
Wangfeng Yan	43	Chief Executive Officer
Weilin Zhang	52	Chief Financial Officer
Mingqin Dong	31	Chief Operating Officer
Zhengyu Wang	52	Chairman of Board of Directors
Yefang Zhang	54	Director
Wencai Pan	44	Director (Independent)
Hongdao Qian	57	Director (Independent)
Shudong Wang	70	Director (Independent)

**Wangfeng Yan** has served as our Chief Executive Officer since December 2019. He was our Chief Operating Officer from March 2018 to December 2019. Mr. Yan joined Tantech Holdings (Lishui) Co., Ltd. (formerly Zhejiang Tantech Bamboo Technology Co., Ltd.) (“Tantech Bamboo”) as a member of the production staff in August 2010 and rose to serve as the head of production managers. Prior to being appointed as Chief Operating Officer, Mr. Yan was in charge of production management for Tantech Bamboo and Tantech Energy. In these capacities, Mr. Yan contributed to the “Dr. Charcoal” brand sales channel development. Mr. Yan is a 9.24% shareholder of CN ENERGY GROUP, INC., another Nasdaq listed company. In June 2010, Mr. Yan earned a Bachelor’s Degree in Engineering from Zhejiang Sci-tech University in Hangzhou.

**Weilin Zhang** has served as our Chief Financial Officer since July 2019. Prior to being appointed as CFO, Mr. Zhang has been serving as the CFO of Forasen Group since October 2018 and was its CFO from March 2008 to June 2013. From July 2013 to September 2018, he was the general manager of Zhejiang Juma Valve Ltd. Co. Currently he is a director of Zhejiang Juma Valve Ltd. Co. He graduated from Zhejiang Province Finance Institute in 1989 and studied accounting at Beijing Industry and Commerce College from 2004 to 2008.

**Mingqin Dong** has served as our Chief Operating Officer since December 2019. He has been the Chairman and the general manager of Shangchi Automobile, our 70% owned subsidiary, since June 2017. From August 2013 to June 2017, Mr. Dong was a project manager of us. In June 2013, Mr. Dong earned his Bachelor’s Degree in Computer and Science Technology from Heilongjiang International University.

**Zhengyu Wang** has served as our Chairman since July 2014 and was our CEO from July 2014 to December 2019. Mr. Wang is a seasoned veteran in business and high-tech agricultural products. He founded Tantech Bamboo in October 2002 (then known as Lishui Zhonglin High Tech Co., Ltd.) and he has served as Chairman and CEO ever since. From November 1998 until April 2003, he was General Manager of Lishui Forasen Foodstuff Co., Ltd. Prior to that, from 1994 to 1997, he served as General Manager of Lishui Jingning Huali, Co., Ltd. From 1990 to 1994, he served as a board member of the Lishui Farmer’s Economic Committee. In addition to his efforts with our Company, Mr. Wang also manages the business operations of Forasen Group, a company he owns with his wife and our director, Ms. Yefang Zhang. Forasen Group is a PRC company with several subsidiaries that are engaged in a variety of businesses, including without limitation rubber trading, mushroom sales, biomass power generation, and marketing. In addition, since February 2017, Mr. Wang has served as a director of Farmmi, Inc., another Nasdaq listed company since February 2018. He has been the executive director and/or general manager of various subsidiary companies under us and charcoal business related companies. Mr. Wang has also been the Chairman of Daxing’anling Hualin Investment Management Ltd. Co. since November 2011 and Daxing’anling Forasen Energy Technology Ltd. Co. since March 2009, and the executive director and general manager of Harbin Forasen Energy Technology Ltd. Co. since December 2013, and of Hangzhou Xinying Industrial Co., Ltd. since December 2013. He earned his Bachelor’s Degree in Biology from Zhejiang University in Hangzhou, China in June 1990. He has been appointed as a director because, as our founder, he has significant experience in leading and advising our Company and understands our industry.

**Yefang Zhang** has been our director since 2013. Ms. Zhang has been in leadership roles for over a dozen years. She then helped to found Forasen Group Co., Ltd in October 2002 and has served as a Board member since then. Since July 2015, she has been Chairwoman and CEO of Farmmi, Inc., another Nasdaq listed company. From 1997 until 2002, she worked as General Manager at Zhejiang Forasen Food Co., Ltd. From 1994 to 1997, she served as Vice General Manager of Lishui Jingning Huali Co., Ltd. From 1991 to 1994, she was a teacher at Wenzhou Huangtan Middle School. From 1990 to 1994, she served on the board of Lishui Farmer's Economic Committee. In addition to her efforts with our Company, Ms. Zhang also manages the business operations of Forasen Group, a company she owns with her husband and our Chairman, Mr. Zhengyu Wang. Forasen Group is a PRC company with several subsidiaries that are engaged in a variety of businesses, including without limitation rubber trading, mushroom sales, biomass power generation, and marketing. Ms. Zhang is a 22.04% shareholder of CN ENERGY GROUP, INC., another Nasdaq listed company. She earned her Bachelor's Degree in Geography from Wenzhou Teacher's College in July 1991. We have appointed Ms. Zhang to be a director due to her strong understanding of our industry and business.

**Wencai Pan** has been our director since 2014. He has served as the CFO of Shandong Xiangrui Pharmacy Co. Ltd., which was listed in the US under SMSA Treemont Acquisition Corp. from 2011 through present. From 2007 through 2010, Mr. Pan was the China controller for Aramex Express Logistics Services (Shanghai) Co. Ltd., a global logistics and transportation company from 2007 to 2010, as controller for its China operations and was based out of Shanghai. During 2006, Mr. Pan had been employed as a consultant by the Centergate Securities Bankruptcy Committee, which was set up by the China Securities Regulatory Commission, where he assisted on bankruptcy audits on Centergate Securities Ltd. Co. Previously, Mr. Pan served as the finance manager for Shera International Limited, a technology product development, production and distribution company, from 2004 until the end of 2005 and was based out of Shanghai. Mr. Pan was employed as an internal auditor by Valley National Bank, located in Wayne, New Jersey, U.S., from 2003 to 2004. None of Mr. Pan's previous employers is a parent, subsidiary or other affiliate of the Company. Mr. Pan obtained a Masters in Professional Accountancy from The University of Utah, in 2003. In 1998, Mr. Pan received a bachelor's degree in Economics from The University of International Business & Economics, Beijing, China. Mr. Pan passed the Chinese CPA exam in 1997 and passed the Uniform CPA exam in the United States in 2002. We have chosen Mr. Pan to serve as a director because of his experience with US GAAP and with United States compliance issues.

**Hongdao Qian** has been our director since 2014. He has been a Professor on the faculty of the Guanghua Law School at Zhejiang University since September 2005. His research, writing and teaching focuses on corporate governance, economic analysis of law and Western jurisprudence. Prior to joining Guanghua Law School, Mr. Qian was a Professor at the Institute of Law, China Academy of Social Sciences; a Lecturer in Economics at Peking University and a Prosecutor in the People's Procuratorate of Zhejiang Province. Mr. Qian was a visiting scholar at Waseda University in Japan, Stanford University in California and both Oxford and Cambridge Universities in England. Since July 2017, he has been an independent director of Farmmi, Inc, another Nasdaq listed company. He currently serves as Vice Chairman of the Chinese Society of Comparative Law, Executive Subeditor of the China Academic Yearbook and President of the China Rule of Law Research Institute, where he has organized a team of scholars to create China's first Rule of Law index using empirical methods. Mr. Qian earned his bachelor of law from Jilin University in 1986, his master of law from North-West University of Politics and Law in 1994 and his doctor of law from Peking University in 1997. We have chosen Mr. Qian to serve on our Board of Directors because of his expertise in economics and law.

**Shudong Wang** has been our director since 2014. He was the department director at the China National Bamboo Research Center from 1996 through his retirement in 2012. He earned his bachelor's degree in forestry from Northeast Forestry University in Heilongjiang in 1976. He once served as deputy director of Bamboo Branch of the Academic Committee of China Forestry. He has also served as executive director of South-South Cooperation Association and the Center of China International Exchange. He is a science advisor to the State Forestry Bureau. We selected Mr. Wang to serve on our Board of Directors because of his expertise in the bamboo industry in China.



## B. Compensation

### EXECUTIVE COMPENSATION

Our compensation committee approves our salary and benefit policies. Before our initial public offering, our board of directors determined the compensation to be paid to our executive officers based on our financial and operating performance and prospects, and contributions made by the officers' to our success. Each of the named officers are measured by a series of performance criteria by the board of directors, or the compensation committee on a yearly basis. Such criteria are set forth based on certain objective parameters such as job characteristics, required professionalism, management skills, interpersonal skills, related experience, personal performance and overall corporate performance.

The board of directors makes an independent evaluation of appropriate compensation to key employees, with input from management. The board of directors has oversight of executive compensation plans, policies and programs.

### Summary Compensation Table

The following table presents summary information regarding the total compensation awarded to, earned by, or paid to each of the named executive officers for services rendered to us for the years ended December 31, 2020, 2019 and 2018.

	<b>Fiscal Year</b>	<b>Salary (\$)</b>	<b>Bonus (\$)<sup>(1)</sup></b>	<b>All Other Compensation (\$)<sup>(2)</sup></b>	<b>Total (\$)</b>
Wangfeng Yan <sup>(3)</sup> <i>Former Chief Operating Officer and current Chief Executive Officer</i>	2020	28,082	—	878	28,960
	2019	26,536	—	820	27,356
	2018	21,911	—	678	22,589
Zhengyu Wang <sup>(4)</sup> <i>Former Chief Executive Officer</i>	2020	—	—	—	—
	2019	32,132	—	994	33,126
	2018	35,054	—	1,084	36,138
Weilin Zhang <sup>(5)</sup> <i>Current Chief Financial Officer</i>	2020	42,124	—	1,316	43,440
	2019	21,911	—	678	22,589
	2018	—	—	—	—
Jing Jin <sup>(6)</sup> <i>Former Chief Financial Officer</i>	2020	—	—	—	—
	2019	24,000	—	—	24,000
	2018	48,000	—	—	48,000
Mingqin Dong <sup>(7)</sup> <i>Current Chief Operating Officer</i>	2020	25,274	—	790	26,064
	2019	2,191	—	68	2,259
	2018	—	—	—	—

(1) No officer received a bonus in 2020, 2019 and 2018.

(2) Consists of social security payments required under Chinese law. Although we also reimburse the referenced individuals for reasonable expenses, such reimbursements do not, in the aggregate, exceed \$10,000 for any individual in any year presented and are not considered perquisites because they are integrally and directly related to the performance of such recipients' jobs.

(3) Effective December 6, 2019, Wangfeng Yan resigned as Chief Operating Officer and was appointed as Chief Executive Officer.

(4) Effective December 6, 2019, Zhengyu Wang resigned as Chief Executive Officer.

(5) Effective July 1, 2019, Weilin Zhang was appointed as Chief Financial Officer.

(6) Effective July 1, 2019, Jing Jin resigned as Chief Financial Officer.

(7) Effective December 6, 2019, Mingqin Dong was appointed as Chief Operating Officer.

### Director Compensation

The following section presents information regarding the compensation paid during fiscal 2019 to members of our Board of Directors who are not also our employees (referred to herein as “Non-Employee Directors”). As of December 31, 2020, we had four such directors, Ms. Yefang Zhang, Mr. Wencai Pan, Mr. Shudong Wang and Mr. Hongdao Qian.

We may also provide stock, option or other equity-based incentives to our directors for their service. We also plan to reimburse our directors for any out-of-pocket expenses incurred by them in connection with their services provided in such capacity.

The following table presents information regarding the compensation of our non-employee directors for fiscal 2020. Compensation for our Chairman and former Chief Executive Officer, Mr. Zhengyu Wang, is reflected above in the Summary Compensation Table rather than below.

Name	Fees earned or paid in cash (\$)	Stock Awards (\$)	Option Awards (\$)	Non-equity Incentive Plan Compensation (\$)	Changes in Pension		All other Compensation (\$)	Total (\$)
					Value and Nonqualified Deferred Compensation (\$)			
Yefang Zhang	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Wencai Pan	\$ 10,800	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,200	\$ 12,000	\$ 12,000
Shudong Wang	\$ 7,835	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,200	\$ 9,035	\$ 9,035
Hongda Qian	\$ 7,835	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,200	\$ 9,035	\$ 9,035

### C.Board Practices

See information provided in response to Item 6.A. above as to the current directors.

### Election of Officers

Our executive officers are elected by, and serve at the discretion of, our board of directors. Our chairman of the Board of Directors, Zhengyu Wang is married to one of our other directors, Yefang Zhang. Other than this relationship, there are no familial relationships among any members of the Board of Directors.

### Board of Directors and Board Committees

Our board of directors currently consists of five (5) directors. A majority of our Board of Directors is independent, as such term is defined by NASDAQ.

A director may vote in respect of any contract or transaction in which he is interested, provided, however that the nature of the interest of any director in any such contract or transaction shall be disclosed by him at or prior to its consideration and any vote on that matter. A general notice or disclosure to the directors or otherwise contained in the minutes of a meeting or a written resolution of the directors or any committee thereof of the nature of a director's interest shall be sufficient disclosure and after such general notice it shall not be necessary to give special notice relating to any particular transaction. A director may be counted for a quorum upon a motion in respect of any contract or arrangement which he shall make with our company, or in which he is so interested and may vote on such motion.

Mr. Wangfeng Yan currently holds the position of Chief Executive Officer. Mr. Zhengyu Wang currently holds the position of Chair of the Board. The board of directors believes that that separating the roles of Chief Executive Officer and Chairman of the board of directors is in the best interests of the Company and its shareholders. Separating such roles allows our Chief Executive Officer to focus completely on operations and corporate strategy execution. We do not have a lead independent director, and we do not anticipate having a lead independent director because we will encourage our independent directors to freely voice their opinions on a relatively small company board. The Board of Directors makes all relevant Company decisions. As a smaller company with a small board of directors, we believe it is appropriate to have the involvement and input of all of our directors in risk oversight matters.

## **Board Committees**

We have established three standing committees under the board: the audit committee, the compensation committee and the nominating committee. The audit committee is responsible for overseeing the accounting and financial reporting processes of our company and audits of the financial statements of our company, including the appointment, compensation and oversight of the work of our independent auditors. The compensation committee of the board of directors reviews and makes recommendations to the board regarding our compensation policies for our officers and all forms of compensation, and also administers our incentive compensation plans and equity-based plans (but our board will retain the authority to interpret those plans). The nominating committee of the board of directors is responsible for the assessment of the performance of the board, considering and making recommendations to the board with respect to the nominations or elections of directors and other governance issues. The nominating committee considers diversity of opinion and experience when nominating directors.

Wencai Pan qualifies as an audit committee financial expert and is the chair of the audit committee. Shudang Wang is the chair of the compensation committee. Hongdao Qian is the chair of the nominating committee. Wencai Pan, Shudong Wang and Hongdao Qian serve on all three committees, and each is an independent director.

## **Duties of Directors**

Under British Virgin Islands law, our directors have a duty to act honestly, in good faith and with a view to our best interests. Our directors also have a duty to exercise the care, diligence and skills that a reasonably prudent person would exercise in comparable circumstances. In fulfilling their duty of care to us, our directors must ensure compliance with our amended and restated memorandum and articles of association. We have the right to seek damages if a duty owed by our directors is breached.

The functions and powers of our board of directors include, among others:

- appointing officers and determining the term of office of the officers;
- authorizing the payment of donations to religious, charitable, public or other bodies, clubs, funds or associations as deemed advisable;
- exercising the borrowing powers of the company and mortgaging the property of the company;
- executing checks, promissory notes and other negotiable instruments on behalf of the company; and
- maintaining or registering a register of mortgages, charges or other encumbrances of the company.

## **Interested Transactions**

A director may vote, attend a board meeting or sign a document on our behalf with respect to any contract or transaction in which he or she is interested. We require directors to promptly disclose the interest to all other directors after becoming aware of the fact that he or she is interested in a transaction we have entered into or are to enter into. A general notice or disclosure to the board or otherwise contained in the minutes of a meeting or a written resolution of the board or any committee of the board that a director is a shareholder, director, officer or trustee of any specified firm or company and is to be regarded as interested in any transaction with such firm or company will be sufficient disclosure, and, after such general notice, it will not be necessary to give special notice relating to any particular transaction.

## **Remuneration and Borrowing**

The directors may receive such remuneration as our board of directors may determine from time to time. Each director is entitled to be repaid or prepaid all traveling, hotel and incidental expenses reasonably incurred or expected to be incurred in attending meetings of our board of directors or committees of our board of directors or shareholder meetings or otherwise in connection with the discharge of his or her duties as a director. The compensation committee will assist the directors in reviewing and approving the compensation structure for the directors. Our board of directors may exercise all the powers of the company to borrow money and to mortgage or charge our undertakings and property or any part thereof, to issue debentures, debenture stock and other securities whenever money is borrowed or as security for any debt, liability or obligation of the company or of any third party.

## **Qualification**

There are no membership qualifications for directors. Further, there are no share ownership qualifications for directors unless so fixed by us in a general meeting. There are no other arrangements or understandings pursuant to which our directors are selected or nominated.

## **Director Compensation**

All directors hold office until the next annual meeting of shareholders at which directors are re-elected or until their successors have been duly elected and qualified. Our Chairman, Zhengyu Wang, is married to our Director, Yefang Zhang. Officers are elected by and serve at the discretion of the Board of Directors. Employee directors do not receive any compensation for their services. Non-employee directors are entitled to receive up to \$30,000 per year for serving as directors and may receive incentive security grants from our company. In addition, non-employee directors are entitled to receive reimbursement of their actual travel expenses for each Board of Directors meeting attended.

## **Limitation of Director and Officer Liability**

Under British Virgin Islands law, each of our directors and officers, in performing his or her functions, is required to act honestly and in good faith with a view to our best interests and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. British Virgin Islands law does not limit the extent to which a company's memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the British Virgin Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime.

Under our memorandum and articles of association, we may indemnify our directors, officers and liquidators against all expenses, including legal fees, and against all judgments, fines and amounts paid in settlement and reasonably incurred in connection with civil, criminal, administrative or investigative proceedings to which they are party or are threatened to be made a party by reason of their acting as our director, officer or liquidator. To be entitled to indemnification, these persons must have acted honestly and in good faith with a view to the best interest of the company and, in the case of criminal proceedings, they must have had no reasonable cause to believe their conduct was unlawful. Such limitation of liability does not affect the availability of equitable remedies such as injunctive relief or rescission. These provisions will not limit the liability of directors under United States federal securities laws.

We may indemnify any of our directors or anyone serving at our request as a director of another entity against all expenses, including legal fees, and against all judgments, fines and amounts paid in settlement and reasonably incurred in connection with legal, administrative or investigative proceedings. We may only indemnify a director if he or she acted honestly and in good faith with the view to our best interests and, in the case of criminal proceedings, the director had no reasonable cause to believe that his or her conduct was unlawful. The decision of our board of directors as to whether the director acted honestly and in good faith with a view to our best interests and as to whether the director had no reasonable cause to believe that his or her conduct was unlawful, is in the absence of fraud sufficient for the purposes of indemnification, unless a question of law is involved. The termination of any proceedings by any judgment, order, settlement, conviction or the entry of no plea does not, by itself, create a presumption that a director did not act honestly and in good faith and with a view to our best interests or that the director had reasonable cause to believe that his or her conduct was unlawful. If a director to be indemnified has been successful in defense of any proceedings referred to above, the director is entitled to be indemnified against all expenses, including legal fees, and against all judgments, fines and amounts paid in settlement and reasonably incurred by the director or officer in connection with the proceedings.

We may purchase and maintain insurance in relation to any of our directors or officers against any liability asserted against the directors or officers and incurred by the directors or officers in that capacity, whether or not we have or would have had the power to indemnify the directors or officers against the liability as provided in our amended and restated memorandum and articles of association.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers or persons controlling our company under the foregoing provisions, we have 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.

#### **Involvement in Certain Legal Proceedings**

To the best of our knowledge, none of our directors or officers has been convicted in a criminal proceeding, excluding traffic violations or similar misdemeanors, nor has any been a party to any judicial or administrative proceeding during the past five years that resulted in a judgment, decree or final order enjoining the person from future violations of, or prohibiting activities subject to, federal or state securities laws, or a finding of any violation of federal or state securities laws, except for matters that were dismissed without sanction or settlement. Except as set forth in our discussion below in “Related Party Transactions,” our directors and officers have not been involved in any transactions with us or any of our affiliates or associates which are required to be disclosed pursuant to the rules and regulations of the SEC.

#### **D. Employees**

##### **OUR EMPLOYEES**

As of March 31, 2021, we employ a total of 39 full-time employees in the following functions (excluding the employees at Shangchi Automobile):

<b>Lishui &amp; Hangzhou</b>	<b>Number of Employees</b>			
	<b>March 31, 2021</b>	<b>December 31, 2020</b>	<b>December 31, 2019</b>	<b>December 31, 2017</b>
<b>Department</b>				
Senior Management	5	5	5	5
Human Resource & Administration	7	7	7	10
Finance	7	7	6	8
Research & Development	3	3	3	3
Production & Procurement	14	14	14	36
Sales & Marketing	3	3	4	5
<b>Total</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>67</b>

Below is information specifically for our Shangchi Automobile subsidiary.

<b>Shangchi Automobile</b>	<b>Number of Employees</b>	
	<b>March 31, 2021</b>	<b>December 31, 2020</b>
<b>Department</b>		
Senior Management	3	3
Human Resource & Administration	6	6
Finance	2	2
Research & Development	6	6
Production & Procurement	14	14
Sales & Marketing	2	2
<b>Total</b>	<b>33</b>	<b>33</b>

Our employees are not represented by a labor organization or covered by a collective bargaining agreement. We have not experienced any work stoppages.

We are required under PRC law to make contributions to employee benefit plans at specified percentages of our after-tax profit. In addition, we are required by PRC law to cover employees in China with various types of social insurance. In 2020, 2019 and 2018, we contributed approximately \$31,000, \$42,000 and \$47,000, respectively, to the employee benefit plans and social insurance. The effect on our liquidity by the payments for these contributions is immaterial. We believe that we are in material compliance with the relevant PRC employment laws.

### **Employment Agreements**

Each employee is required to enter into an employment agreement. Accordingly, all of our employees, including management, have executed their employment agreements. Our employment agreements with our executives provide the amount of each executive officer's salary and establish their eligibility to receive a bonus.

Our employment agreements with our executive officers generally provide for a salary to be paid monthly. The agreements also provide that executive officers are to work full time for our company and are entitled to all legal holidays as well as other paid leave in accordance with PRC laws and regulations and our internal work policies. The employment agreements also provide that we will pay for all mandatory social security programs for our executive officers in accordance with PRC regulations. Our executive officers are subject to keep trade secrets confidential. In addition, our employment agreements with our executive officers prevent them from rendering services for our competitors for so long as they are employed.

Other than the salary, bonuses, equity grants and necessary social benefits required by the government, which are defined in the employment agreements, we currently do not provide other benefits to the officers. Our executive officers are not entitled to severance payments upon the termination of their employment agreement or following a change in control.

We have not provided retirement benefits (other than a state pension scheme in which all of our employees in China participate) or severance or change of control benefits to our named executive officers.

Under Chinese law, we may terminate an employment agreement without penalty by providing the employee thirty days' prior written notice or one month's wages in lieu of notice if the employee is incompetent or remains incompetent after training or adjustment of the employee's position in other limited cases. If we wish to terminate an employment agreement in the absence of cause, then we are obligated to pay the employee one month's salary for each year we have employed the employee. We are, however, permitted to terminate an employee for cause without penalty to our company, where the employee has committed a crime or the employee's actions or inactions have resulted in a material adverse effect to us.

### **Wangfeng Yan**

We entered into an employment agreement with our Chief Executive Officer, Mr. Wangfeng Yan, effective December 6, 2019. Under the terms of that employment agreement, Mr. Yan is entitled to the following:

- Base compensation of RMB 200,000 payable in 12 equal monthly installments of RMB 15,000 each and RMB 20,000 year-end bonus.
- Reimbursement of reasonable expenses incurred by Mr. Yan.

Mr. Yan's employment agreement is scheduled to expire on December 5, 2022.

## Weilin Zhang

We entered into an employment agreement with our chief financial officer, Mr. Weilin Zhang, effective July 1, 2019. Under the terms of that employment agreement, Mr. Zhang is entitled to the following:

- Base compensation of RMB 300,000 payable in 12 equal monthly installments of RMB 25,000 each.
- Reimbursement of reasonable expenses incurred by Mr. Zhang.

Mr. Zhang's employment agreement is scheduled to expire on June 30, 2022.

## Mingqin Dong

We entered into an employment agreement with our Chief Operating Officer, Mr. Mingqin Dong, effective December 6, 2019. Under the terms of that employment agreement, Mr. Dong is entitled to the following:

- Base compensation of RMB 180,000 payable in 12 equal monthly installments of RMB 15,000 each.
- Reimbursement of reasonable expenses incurred by Mr. Dong.

Mr. Dong's employment agreement is scheduled to expire on December 5, 2022.

## E. Share ownership

The following table sets forth information with respect to beneficial ownership of our common shares as of April 27, 2021 by:

- Each of our directors and named executive officers; and
- All directors and named executive officers as a group.

The number and percentage of common shares beneficially owned are based on 35,894,097 common shares outstanding as of April 27, 2021. Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of 5% or more of our common shares. Beneficial ownership is determined in accordance with the rules of the SEC and generally requires that such person have voting or investment power with respect to securities. In computing the number of common shares beneficially owned by a person listed below and the percentage ownership of such person, common shares underlying options, warrants or convertible securities held by each such person that are exercisable or convertible within 60 days of April 27, 2021 are deemed outstanding, but are not deemed outstanding for computing the percentage ownership of any other person. Except as otherwise indicated in the footnotes to this table, or as required by applicable community property laws, all persons listed have sole voting and investment power for all common shares shown as beneficially owned by them. Unless otherwise indicated in the footnotes, the address for each principal shareholder is in the care of our Company at Tantech Holdings (Lishui) Co., Ltd., No. 10 Cen Shan Road, Shuige Industrial Zone, Lishui City, Zhejiang Province 323000, People's Republic of China. As of April 27, 2021, we had five shareholders of record.

<b>Named Executive Officers and Directors</b>	<b>Amount of Beneficial Ownership(1)</b>	<b>Percentage Ownership(2)</b>
<b>Directors and Named Executive Officers:</b>		
Wangfeng Yan, CEO <sup>(3)</sup>	18,935	0.1%
Weilin Zhang, CFO	—	0.0%
Mingqin Dong, COO	—	0.0%
Zhengyu Wang <sup>(4)</sup> , Chairman	11,280,000	31.4%
Yefang Zhang <sup>(4)</sup> , director	11,280,000	31.4%
Wencai Pan, independent director	—	0.0%
Shudong Wang, independent director	—	0.0%
Hongdao Qian, independent director	—	0.0%
<b>All directors and executive officers as a group (eight (8) persons)</b>	<b>11,298,935</b>	<b>31.5%</b>

(1) Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the common shares.

(2) The number of our common shares outstanding used in calculating the percentage for each listed person includes the common shares underlying options held by such person to the extent such options are exercisable within 60 days of the date hereof.

(3) Mr. Wangfeng Yan holds 18,395 shares of the Company through a company he wholly owns.

(4) Tanbsok Group Ltd holds 11,280,000 common shares of the Company. The sole shareholder of Tanbsok Group Ltd is Ms. Yefang Zhang, who is the director of our company and the spouse of our Chairman and founder, Mr. Zhengyu Wang. By virtue of this relationship, Mr. Wang may be deemed to share beneficial ownership of the shares of our company held by Tanbsok Group Ltd with Ms. Zhang.

## Options

### Incentive Securities Pool

We have established a pool for shares and share options for our employees. As of the date of this report, this pool contain shares and options to purchase 2,160,000 of our common shares, equal to 10% of the number of common shares outstanding as of the public offering.

Any options granted will vest at a rate of 20% per year for five years and have a per share exercise price equal to the fair market value of one of our common shares on the date of grant. We expect to grant shares and/or options under this pool to certain employees. We have not yet determined the recipients of any such grants.

### ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

The following table sets forth information with respect to beneficial ownership of our common shares as of April 27, 2021 by:

- Each person who is known by us to beneficially own 5% or more of our outstanding common shares.

The number and percentage of common shares beneficially owned are based on 35,894,097 common shares outstanding as of April 27, 2021. Information with respect to beneficial ownership has been furnished by each director, officer or beneficial owner of 5% or more of our common shares. Beneficial ownership is determined in accordance with the rules of the SEC and generally requires that such person have voting or investment power with respect to securities. In computing the number of common shares beneficially owned by a person listed below and the percentage ownership of such person, common shares underlying options, warrants or convertible securities held by each such person that are exercisable or convertible within 60 days of April 27, 2021 are deemed outstanding, but are not deemed outstanding for computing the percentage ownership of any other person. Except as otherwise indicated in the footnotes to this table, or as required by applicable community property laws, all persons listed have sole voting and investment power for all common shares shown as beneficially owned by them. Unless otherwise indicated in the footnotes, the address for each principal shareholder is in the care of our Company at Tantech Holdings (Lishui) Co., Ltd., No. 10 Cen Shan Road, Shuige Industrial Zone, Lishui City, Zhejiang Province 323000, People's Republic of China.

Shareholders	Amount of Beneficial Ownership(1)	Percentage Ownership(2)
Tanbsok Group Ltd <sup>(2)</sup>	11,280,000	31.4%

(1) Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the common shares.

(2) Tanbsok Group Ltd held one hundred percent of our issued and outstanding shares prior to our initial public offering. The sole shareholder of Tanbsok Group Ltd is Ms. Yefang Zhang, who is a director of our company and the spouse of our Chairman and founder, Mr. Zhengyu Wang. By virtue of this relationship, Mr. Wang may be deemed to share beneficial ownership of the shares of our company held by Tanbsok Group Ltd with Ms. Zhang.



## B. Related party transactions

Our Audit Committee of our Board of Directors (which consists solely of independent directors) approves and ratifies all related party transactions.

In addition to the executive officer and director compensation arrangements discussed in “Executive Compensation,” below we describe transactions since January 1, 2018, to which we have been a participant, in which the amount involved in the transactions is material to us or the related party.

Since the beginning of 2018, we have had transactions with the following related parties:

- Zhengyu Wang
- Yefang Zhang
- Wangfeng Yan
- Henglong Chen
- LiShui JiuAnJu Commercial Trade Co., Ltd.
- Forasen Group
- Zhejiang Forasen Food Co., Ltd.

In addition to the executive officer and director compensation arrangements, Tantech entered the following related party transactions for the year ended December 31, 2020, 2019 and 2018, to which it was a participant, in which the amount involved in the transactions is material to Tantech or the related party.

	<b>December 31, 2020</b>	<b>December 31, 2019</b>	<b>December 31, 2018</b>
Dr. Henglong Chen and his affiliates *	\$ 881,442	\$ 932,616	\$ 1,227,773
Forasen Group Co., Ltd. (“Forasen Group”) and its affiliates, controlled by Mr. Zhengyu Wang, Chairman and previous CEO of the Company until December 6, 2019, and Ms. Yefang Zhang, Mr. Wang’s wife and a director of the Company	1,058,188	864,623	874,402
Mr. Wangfeng Yan, the CEO of the Company since December 7, 2019 and his affiliates	79,457	41,364	-
Total	<u>\$ 2,019,087</u>	<u>\$ 1,838,603</u>	<u>\$ 2,102,175</u>

\* Dr. Henglong Chen is the original shareholder of Shangchi Automobile (formerly known as Suzhou E-Motors). The Company acquired his 70% equity interest in Shangchi Automobile and issued 2,500,000 of Tantech’s restricted common shares to him in connection with the acquisition of Shangchi Automobile. As of December 31, 2020, 2019 and 2018, the amount due to Dr. Henglong Chen and his affiliates were \$881,442, \$932,616 and \$1,227,773, respectively.

As of December 31, 2020, 2019 and 2018, the Company also borrowed \$1,058,188, \$864,623 and \$874,402 from Forasen Group and its affiliates, controlled by Mr. Zhengyu Wang, Chairman and previous CEO of the Company, and Ms. Yefang Zhang, Mr. Wang's wife and a director of the Company, for working capital purposes.

Mr. Wangfeng Yan, the CEO of the Company, and his affiliates, also made advances to the Company. The balance due to Mr. Wangfeng Yan and his affiliates was \$79,457, \$41,364 and \$0, as of December 31, 2020, 2019 and 2018, respectively.

All balances of due to the related parties were unsecured, interest-free and due upon demand.

The Company's major shareholder Ms. Yefang Zhang, as well as related party entities controlled by Mr. Wang, provided guarantees to the Company's bank loans.

#### Advance to vendor – related party

During the year ended December 31, 2020, the Company paid \$3,089,690 (RMB 20,154,532) to Lishui Jiuanju Commercial Trade Co., Ltd. ("LJC"), a company controlled by our CEO, Mr. Wangfeng Yan, to purchase bamboo charcoal materials. As of December 31, 2020, the Company received materials of \$1,556,690 (RMB 10,154,532 with tax), and the remaining advance of \$1,533,000 (RMB 10 million) was returned by the vendor in March 2021.

#### Guaranty provided for related party

In July 2017, Zhejiang Tantech Energy Tech Co., Ltd. ("Tantech Energy") provided a guarantee with a bank on behalf of Forasen Group for maximum amount of approximately \$8.7 million (RMB 57,070,000) by pledging certain land and building as the collateral for the loan and notes. The guarantee expired on July 23, 2020.

In July 2020, Tantech Bamboo provided a guarantee with Bank of China for Zhejiang Forasen Food Co., Ltd. ("Forasen Food") for maximum amount of approximately \$1.5 million (RMB10 million) by pledging certain land and building as the collateral for the loan and notes. The guarantee will expire on July 8, 2023. Forasen Food is controlled by Ms. Yefang Zhang who is the Company's director.

### **C. Interests of experts and counsel**

Not applicable for annual reports on Form 20-F.

## **ITEM 8. FINANCIAL INFORMATION**

### **A. Consolidated Statements and Other Financial Information**

See information provided in response to Item 18 below.

We incorporate by reference in the Registration Statements on Form F-3 (File No. 333- 213240, 333-248197 and 333-251509) and on Form S-8 (File No. 333-205821) our consolidated balance sheets as of December 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended December 31, 2020, which appears in this Annual Report on Form 20-F.

## Legal and Administrative Proceedings

We may be involved from time to time in litigation, claims or other disputes in the ordinary course of business regarding, among other things, contract disputes with our customers, copyright, trademark and other intellectual property infringement claims, consumer protection claims, employment related cases and other matters in the ordinary course of our and disputes between our merchants and consumers. We may also be involved in litigation, regulatory investigations or inquiries and administrative proceedings that may not necessarily arise from our ordinary course of business, such as securities class action lawsuits and investigations or inquiries by securities regulators.

On March 23, 2021, Mr. Hengwei Chen filed a lawsuit against Shangchi Automobile and us for a debt dispute of total RMB 11.35 million (approximately \$1.7 million). Mr. Chen was the former general manager of Shangchi Automobile before the Company acquired Shangchi Automobile in 2017.

### Dividend Policy

Since our inception, we have not declared or paid any dividends on our ordinary shares. We have no present plan to pay any dividends on our ordinary shares in the foreseeable future. We intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

Any future determination to pay dividends will be made at the discretion of our board of directors and may be based on a number of factors, including our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant.

### B. Significant Changes

We have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

## ITEM 9. THE OFFER AND LISTING.

### A. Offer and listing details

Our common shares have been listed on Nasdaq since March 24, 2015 under the symbol “TANH.”

### B. Plan of distribution

Not applicable for annual reports on Form 20-F.

### C. Markets

Our common shares are listed on Nasdaq under the symbol “TANH.”

### D. Selling shareholders

Not applicable for annual reports on Form 20-F.

### E. Dilution

Not applicable for annual reports on Form 20-F.

### F. Expenses of the issue

Not applicable for annual reports on Form 20-F.

**ITEM 10. ADDITIONAL INFORMATION.**

**A. Share capital**

Not applicable for annual reports on Form 20-F.

**B. Memorandum and articles of association**

We incorporate by reference the description of our Memorandum and Articles of Association, as currently in effect in the British Virgin Islands, set forth in our registration statement on Form F-1, declared effective on March 18, 2015 (File No. 333-198788).

**C. Material contracts**

Other than as otherwise disclosed previously, we did not have any other materials contracts.

**D. Exchange controls**

**Foreign Currency Exchange**

The principal regulations governing foreign currency exchange in China are the Foreign Exchange Administration Regulations. Under the PRC foreign exchange regulations, payments of current account items, such as profit distributions and trade and service-related foreign exchange transactions, may be made in foreign currencies without prior approval from SAFE by complying with certain procedural requirements. By contrast, approval from or registration with appropriate government authorities is required where RMB is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of foreign currency-denominated loans or foreign currency is to be remitted into China under the capital account, such as a capital increase or foreign currency loans to our PRC subsidiaries.

In August 2008, SAFE issued the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign-Invested Enterprises, or SAFE Circular 142, regulating the conversion by a foreign-invested enterprise of foreign currency-registered capital into RMB by restricting how the converted RMB may be used. In addition, SAFE promulgated Circular 45 on November 9, 2011 in order to clarify the application of SAFE Circular 142. Under SAFE Circular 142 and Circular 45, the RMB capital converted from foreign currency registered capital of a foreign-invested enterprise may only be used for purposes within the business scope approved by the applicable government authority and may not be used for equity investments within the PRC. In addition, SAFE strengthened its oversight of the flow and use of the RMB capital converted from foreign currency registered capital of foreign-invested enterprises. The use of such RMB capital may not be changed without SAFE's approval, and such RMB capital may not in any case be used to repay RMB loans if the proceeds of such loans have not been used.

In November 2012, SAFE promulgated the Circular of Further Improving and Adjusting Foreign Exchange Administration Policies on Foreign Direct Investment, which substantially amends and simplifies the current foreign exchange procedure. Pursuant to this circular, the opening of various special purpose foreign exchange accounts, such as pre-establishment expenses accounts, foreign exchange capital accounts and guarantee accounts, the reinvestment of RMB proceeds by foreign investors in the PRC, and remittance of foreign exchange profits and dividends by a foreign-invested enterprise to its foreign shareholders no longer require the approval or verification of SAFE, and multiple capital accounts for the same entity may be opened in different provinces, which was not possible previously. In addition, SAFE promulgated the Circular on Printing and Distributing the Provisions on Foreign Exchange Administration over Domestic Direct Investment by Foreign Investors and the Supporting Documents in May 2013, which specifies that the administration by SAFE or its local branches over direct investment by foreign investors in the PRC shall be conducted by way of registration and banks shall process foreign exchange business relating to the direct investment in the PRC based on the registration information provided by SAFE and its branches.

We typically do not need to use our offshore foreign currency to fund our PRC operations. In the event we need to do so, we will apply to obtain the relevant approvals of SAFE and other PRC government authorities as necessary.

### **SAFE Circular 37**

In July 2014, SAFE issued SAFE Circular 37, which supersedes SAFE Circular 75, and requires that PRC citizens or residents must register with the relevant local SAFE branch before making capital contribution to any offshore entity directly established or indirectly controlled by that PRC citizen or resident for the purpose of investment or financing and with onshore or offshore assets or equity interests legally owned by that PRC citizen or resident. In addition, the SAFE registrations are required to be updated with local SAFE branch with respect to that offshore special purpose company in connection with the change of its basic information, such as its company name, business term, shareholding by individual PRC citizens or residents, merger, or division and, with respect to the individual PRC citizens or residents in case of any increases or decreases of capital in that offshore special purpose company, or share transfers or swaps by the individual PRC citizens or residents.

### **Regulation of Dividend Distribution**

The principal laws, rules and regulations governing dividend distribution by foreign-invested enterprises in the PRC are the Company Law of the PRC, as amended, the Wholly Foreign-owned Enterprise Law and its implementation regulations and the Equity Joint Venture Law and its implementation regulations. Under these laws, rules and regulations, foreign-invested enterprises may pay dividends only out of their accumulated profit, if any, as determined in accordance with PRC accounting standards and regulations. Both PRC domestic companies and wholly-foreign owned PRC enterprises are required to set aside as general reserves at least 10% of their after-tax profit, until the cumulative amount of such reserves reaches 50% of their registered capital. A PRC company is not permitted to distribute any profits until any losses from prior fiscal years have been offset. Profits retained from prior fiscal years may be distributed together with distributable profits from the current fiscal year.

### **E. Taxation**

The following sets forth the material British Virgin Islands, Chinese and U.S. federal income tax consequences related to an investment in our common shares. It is directed to U.S. Holders (as defined below) of our common shares and is based upon laws and relevant interpretations thereof in effect as of the date of this annual report, all of which are subject to change. This description does not deal with all possible tax consequences relating to an investment in our common shares, such as the tax consequences under state, local and other tax laws.

The following brief description applies only to U.S. Holders (defined below) that hold common shares as capital assets and that have the U.S. dollar as their functional currency. This brief description is based on the tax laws of the United States in effect as of the date of this annual report and on U.S. Treasury regulations in effect or, in some cases, proposed, as of the date of this annual report, as well as judicial and administrative interpretations thereof available on or before such date. All of the foregoing authorities are subject to change, which change could apply retroactively and could affect the tax consequences described below.

The brief description below of the U.S. federal income tax consequences to “U.S. Holders” will apply to you if you are a beneficial owner of shares and you are, for U.S. federal income tax purposes,

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income taxation regardless of its source; or

- a trust that (1) is subject to the primary supervision of a court within the United States and the control of one or more U.S. persons for all substantial decisions or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

**WE URGE POTENTIAL PURCHASERS OF OUR SHARES TO CONSULT THEIR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, OWNING AND DISPOSING OF OUR SHARES.**

**People's Republic of China Enterprise Taxation**

The following brief description of Chinese enterprise laws is designed to highlight the enterprise-level taxation on our earnings, which will affect the amount of dividends, if any, we are ultimately able to pay to our shareholders. Our company pays a 17% value added tax and EIT rates of 15% for Tantech Bamboo and 25% for Tantech Charcoal. Tantech Bamboo pays a lower EIT rate than Tantech Charcoal because Tantech Bamboo has been certified as high technology companies and thus enjoys a preferable rate. If this favorable EIT rate were to be terminated or Tantech Bamboo was to fail to qualify to receive these rates, they would be subject to taxation at the standard EIT rate of 25% for enterprise income taxes, unless we were otherwise to qualify for a decreased tax rate.

**British Virgin Islands Taxation**

Under the BVI Act as currently in effect, a holder of common shares who is not a resident of the British Virgin Islands is exempt from British Virgin Islands income tax on dividends paid with respect to the common shares and all holders of common shares are not liable to the British Virgin Islands for income tax on gains realized during that year on sale or disposal of such shares. The British Virgin Islands does not impose a withholding tax on dividends paid by a company incorporated or re-registered under the BVI Act.

There are no capital gains, gift or inheritance taxes levied by the British Virgin Islands on companies incorporated or re-registered under the BVI Act. In addition, shares of companies incorporated or re-registered under the BVI Act are not subject to transfer taxes, stamp duties or similar charges.

There is no income tax treaty or convention currently in effect between the United States and the British Virgin Islands or between China and the British Virgin Islands.

**United States Federal Income Taxation**

The following does not address the tax consequences to any particular investor or to persons in special tax situations such as:

- banks;
- financial institutions;
- insurance companies;
- regulated investment companies;
- real estate investment trusts;
- broker-dealers;
- traders that elect to mark-to-market;
- U.S. expatriates;

- tax-exempt entities;
- persons liable for alternative minimum tax;
- persons holding our common shares as part of a straddle, hedging, conversion or integrated transaction;
- persons that actually or constructively own 10% or more of our voting shares;
- persons who acquired our common shares pursuant to the exercise of any employee share option or otherwise as consideration; or
- persons holding our common shares through partnerships or other pass-through entities.

Prospective purchasers are urged to consult their tax advisors about the application of the U.S. Federal tax rules to their particular circumstances as well as the state, local, foreign and other tax consequences to them of the purchase, ownership and disposition of our common shares.

#### **Taxation of Dividends and Other Distributions on our Common Shares**

Subject to the passive foreign investment company rules discussed below, the gross amount of distributions made by us to you with respect to the common shares (including the amount of any taxes withheld therefrom) will generally be includable in your gross income as dividend income on the date of receipt by you, but only to the extent that the distribution is paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). The dividends will not be eligible for the dividends-received deduction allowed to corporations in respect of dividends received from other U.S. corporations.

With respect to non-corporate U.S. Holders, including individual U.S. Holders, dividends are taxed at the lower capital gains rate applicable to qualified dividend income, provided that (1) the common shares are readily tradable on an established securities market in the United States, or we are eligible for the benefits of an approved qualifying income tax treaty with the United States that includes an exchange of information program, (2) we are not a passive foreign investment company (as discussed below) for either our taxable year in which the dividend is paid or the preceding taxable year, and (3) certain holding period requirements are met. Under U.S. Internal Revenue Service authority, common shares are considered for purpose of clause (1) above to be readily tradable on an established securities market in the United States if they are listed on Nasdaq. You are urged to consult your tax advisors regarding the availability of the lower rate for dividends paid with respect to our common shares, including the effects of any change in law after the date of this annual report.

Dividends will constitute foreign source income for foreign tax credit limitation purposes. If the dividends are taxed as qualified dividend income (as discussed above), the amount of the dividend taken into account for purposes of calculating the foreign tax credit limitation will be limited to the gross amount of the dividend, multiplied by the reduced rate divided by the highest rate of tax normally applicable to dividends. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends distributed by us with respect to our common shares will constitute “passive category income” but could, in the case of certain U.S. Holders, constitute “general category income.”

To the extent that the amount of the distribution exceeds our current and accumulated earnings and profits (as determined under U.S. federal income tax principles), it will be treated first as a tax-free return of your tax basis in your common shares, and to the extent the amount of the distribution exceeds your tax basis, the excess will be taxed as capital gain. We do not intend to calculate our earnings and profits under U.S. federal income tax principles. Therefore, a U.S. Holder should expect that a distribution will be treated as a dividend even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above.

## Taxation of Dispositions of Common Shares

Subject to the passive foreign investment company rules discussed below, you will recognize taxable gain or loss on any sale, exchange or other taxable disposition of a share equal to the difference between the amount realized (in U.S. dollars) for the share and your tax basis (in U.S. dollars) in the common shares. The gain or loss will be capital gain or loss. If you are a non-corporate U.S. Holder, including an individual U.S. Holder, who has held the common shares for more than one year, you will generally be eligible for reduced tax rates. If capital gains preferential rates are amended, such gains would be taxable at the personal income rates then in place. The deductibility of capital losses is subject to limitations. Any such gain or loss that you recognize will generally be treated as United States source income or loss for foreign tax credit limitation purposes.

### Passive Foreign Investment Company

We believe that we are not a passive foreign investment company for U.S. federal income tax purposes for the year ended December 31, 2020, but we cannot be certain whether we will be treated as a passive foreign investment company for any future taxable year. PFIC status is a factual determination for each taxable year which cannot be made until the close of the taxable year. A non-U.S. corporation is considered a PFIC for any taxable year if either:

- at least 75% of its gross income is passive income; or
- at least 50% of the value of its assets (based on an average of the quarterly values of the assets during a taxable year) is attributable to assets that produce or are held for the production of passive income (the “asset test”).

We will be treated as owning our proportionate share of the assets and earning our proportionate share of the income of any other corporation in which we own, directly or indirectly, at least 25% (by value) of the stock.

We must make a separate determination each year as to whether we are a PFIC. As a result, our PFIC status may change. In particular, because the value of our assets for purposes of the asset test will generally be determined based on the market price of our common shares, our PFIC status will depend in large part on the market price of our common shares. Accordingly, fluctuations in the market price of the common shares may cause us to become a PFIC. If we are a PFIC for any year during which you hold common shares, we will continue to be treated as a PFIC for all succeeding years during which you hold common shares.

However, if we cease to be a PFIC, you may avoid some of the adverse effects of the PFIC regime by making a “deemed sale” election with respect to the common shares.

If we are a PFIC for any taxable year during which you hold common shares, you will be subject to special tax rules with respect to any “excess distribution” that you receive and any gain you realize from a sale or other disposition (including a pledge) of the common shares, unless you make a “mark-to-market” election as discussed below. Distributions you receive in a taxable year that are greater than 125% of the average annual distributions you received during the shorter of the three preceding taxable years or your holding period for the common shares will be treated as an excess distribution. Under these special tax rules:

- the excess distribution or gain will be allocated ratably over your holding period for the common shares;
- the amount allocated to the current taxable year, and any taxable year prior to the first taxable year in which we were a PFIC, will be treated as ordinary income, and
- the amount allocated to each other year will be subject to the highest tax rate in effect for that year and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

The tax liability for amounts allocated to years prior to the year of disposition or “excess distribution” cannot be offset by any net operating losses for such years, and gains (but not losses) realized on the sale of the common shares cannot be treated as capital, even if you hold the common shares as capital assets.



A U.S. Holder of “marketable stock” (as defined below) in a PFIC may make a mark-to-market election for such stock to elect out of the tax treatment discussed above. If you make a mark-to-market election for the common shares, you will include in income each year an amount equal to the excess, if any, of the fair market value of the common shares as of the close of your taxable year over your adjusted basis in such common shares. You are allowed a deduction for the excess, if any, of the adjusted basis of the common shares over their fair market value as of the close of the taxable year. However, deductions are allowable only to the extent of any net mark-to-market gains on the common shares included in your income for prior taxable years. Amounts included in your income under a mark-to-market election, as well as gain on the actual sale or other disposition of the common shares, are treated as ordinary income. Ordinary loss treatment also applies to the deductible portion of any mark-to-market loss on the common shares, as well as to any loss realized on the actual sale or disposition of the common shares, to the extent that the amount of such loss does not exceed the net mark-to-market gains previously included for such common shares. Your basis in the common shares will be adjusted to reflect any such income or loss amounts. If you make a valid mark-to-market election, the tax rules that apply to distributions by corporations which are not PFICs would apply to distributions by us, except that the lower applicable capital gains rate for qualified dividend income discussed above under “— Taxation of Dividends and Other Distributions on our Common Shares” generally would not apply.

The mark-to-market election is available only for “marketable stock”, which is stock that is traded in other than de minimis quantities on at least 15 days during each calendar quarter (“regularly traded”) on a qualified exchange or other market (as defined in applicable U.S. Treasury regulations), including Nasdaq. If the common shares are regularly traded on Nasdaq and if you are a holder of common shares, the mark-to-market election would be available to you were we to be or become a PFIC.

Alternatively, a U.S. Holder of stock in a PFIC may make a “qualified electing fund” election with respect to such PFIC to elect out of the tax treatment discussed above. A U.S. Holder who makes a valid qualified electing fund election with respect to a PFIC will generally include in gross income for a taxable year such holder’s pro rata share of the corporation’s earnings and profits for the taxable year. However, the qualified electing fund election is available only if such PFIC provides such U.S. Holder with certain information regarding its earnings and profits as required under applicable U.S. Treasury regulations. We do not currently intend to prepare or provide the information that would enable you to make a qualified electing fund election. If you hold common shares in any year in which we are a PFIC, you will be required to file U.S. Internal Revenue Service Form 8621 regarding distributions received on the common shares and any gain realized on the disposition of the common shares.

You are urged to consult your tax advisors regarding the application of the PFIC rules to your investment in our common shares and the elections discussed above.

#### **Information Reporting and Backup Withholding**

Dividend payments with respect to our common shares and proceeds from the sale, exchange or redemption of our common shares may be subject to information reporting to the U.S. Internal Revenue Service and possible U.S. backup withholding. Backup withholding will not apply, however, to a U.S. Holder who furnishes a correct taxpayer identification number and makes any other required certification on U.S. Internal Revenue Service Form W-9 or who is otherwise exempt from backup withholding. U.S. Holders who are required to establish their exempt status generally must provide such certification on U.S. Internal Revenue Service Form W-9. U.S. Holders are urged to consult their tax advisors regarding the application of the U.S. information reporting and backup withholding rules.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against your U.S. federal income tax liability, and you may obtain a refund of any excess amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the U.S. Internal Revenue Service and furnishing any required information.

#### **F. Dividends and Paying Agents**

Not applicable.

## **G. Statement by Experts**

Not applicable.

## **H. Documents on display**

The Company is subject to the informational requirements of the Exchange Act, and will file reports, registration statements and other information with the SEC. The Company's reports, registration statements and other information can be inspected on the SEC's website at [www.sec.gov](http://www.sec.gov) and such information can also be inspected and copies ordered at the public reference facilities maintained by the SEC at the following location: 100 F Street NE, Washington, D.C. 20549. You may also visit us on the World Wide Web at <http://www.tantech.cn>. However, information contained on our website does not constitute a part of this annual report.

## **I. Subsidiary Information**

Not applicable.

## **ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.**

### **Interest Rate Risk**

Our exposure to interest rate risk primarily relates to excess cash invested in short-term instruments with original maturities of less than a year and long-term held-to-maturity securities with maturities of greater than a year. Investments in both fixed rate and floating rate interest earning instruments carry a degree of interest rate risk. Fixed rate securities may have their fair market value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectations due to changes in interest rates, or we may suffer losses in principal if we have to sell securities that have declined in market value due to changes in interest rates. We have not been, and do not expect to be, exposed to material interest rate risks, and therefore have not used any derivative financial instruments to manage our interest risk exposure.

As of December 31, 2020, if interest rates increased/decreased by 1%, with all other variables having remained constant, and assuming the amount of bank borrowings outstanding at the end of the year was outstanding for the entire year, profit attributable to equity owners of our company would have been RMB 0.5 million (\$0.1 million) lower/higher, respectively, mainly as a result of higher/lower interest income from our cash and cash equivalents and loan receivables.

We had no short-term investments and long-term held-to-maturity investments as of December 31, 2020.

### **Foreign Exchange Risk**

Our functional currency is the RMB, and our financial statements are presented in U.S. dollar. The Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. Any appreciation or depreciation in the value of RMB relative to the U.S. dollar may affect our financial results reported in the U.S. dollar terms without giving effect to any underlying change in our business or results of operation.

Currently, our assets, liabilities, revenues and costs are mainly denominated in RMB. However, we may generate revenues denominated in U.S. dollar, and our offering was in U.S. dollar. Therefore, a portion of our cash and cash equivalents and short-term financial assets are denominated in U.S. dollar. Our exposure to foreign exchange risk primarily relate to those financial assets denominated in U.S. dollars. Any significant revaluation of RMB against U.S. dollar may materially affect our earnings and financial position, and the value of, and any dividends payable on, our common shares in U.S. dollars in the future. We reflect the impact of currency translation adjustments in our financial statements under the heading "accumulated other comprehensive income (loss)." For years ended December 31, 2020, 2019 and 2018, we had adjustments of \$5,892,311, \$(5,494,731) and \$(949,689), respectively, for foreign currency translations. See "Risk Factors — Risks Related to Doing Business in China — Fluctuations in exchange rates could adversely affect our business and the value of our securities."

## Commodity Risk

As a developer and manufacturer of bamboo-based charcoal products, our Company is exposed to the risk of an increase in the price of raw bamboo and, as a result, bamboo charcoal. We historically have lacked an ability to pass on price increases to customers, but we have not entered into any contract to hedge any specific commodity risk. Moreover, our Company does not purchase or trade on commodity instruments or positions; instead, it purchases commodities (bamboo charcoal and wood-based charcoal) for use.

In summer 2012, we faced a supply shortage based on local government initiatives to reduce the risk of fire caused by charcoal. As a result, the local government in Daxing Anlin, where one of our main wood-based OEM BBQ charcoal suppliers is located, restricted the production of charcoal during June, July and August 2012. At that time, our stock of OEM BBQ charcoal was insufficient to avoid demand pressures. We have viewed this temporary shortage as an isolated event and do not expect it to recur in the future. If, however, this belief is incorrect, the absence of hedging could exacerbate our commodity risk.

### ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES.

With the exception of Items 12.D.3 and 12.D.4, this Item 12 is not applicable for annual reports on Form 20-F. As to Items 12.D.3 and 12.D.4, this Item 12 is not applicable, as the Company does not have any American Depositary Shares.

## PART II

### ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES.

We do not have any material defaults in the payment of principal, interest, or any installments under a sinking or purchase fund.

### ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS.

See “Item 10.B—Additional Information—Memorandum and Articles of Association” for a description of the rights of securities holders, which remain unchanged.

### ITEM 15. CONTROLS AND PROCEDURES.

#### (a) Evaluation of Disclosure Controls and Procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Disclosure controls and procedures are controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’ rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to management, including our principal executive officer and our principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were not effective as of December 31, 2020.

#### (b) Management’s Annual Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. The Company’s internal control over financial reporting (“ICFR”) is a process that is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States and includes those policies and procedures that:

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, we conducted an assessment of the effectiveness of our system of ICFR as of December 31, 2020, the last day of our fiscal year of 2020. This assessment was based on the framework established in the Internal Control Integrated Framework issued by the committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Based on such evaluation, our management, including the CEO and CFO, has concluded that the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act of 1934) were not effective as of December 31, 2020.

Management's assessment of the ineffective internal control over financial reporting as of December 31, 2020 considered the following factors:

- the number of inadequate skilled accounting personnel who are either qualified as Certified Public Accountants in the U.S. or who have received education from U.S. institutions or other educational programs that would provide enough relevant education relating to U.S. GAAP;
- lack of adequate knowledge of SEC rules; and
- Due to the size of the Company and available resources, there are limited personnel to assist with the accounting and financial reporting function, which results in a lack of segregation of duties.

Based on the above factors, management concluded that we did not maintain effective internal control over financial reporting as of December 31, 2020 because our accounting staff continues to lack sufficient U.S. GAAP experience and requires further substantial training. These material weaknesses existed as of December 31, 2019 and had not yet been fully remediated as of December 31, 2020.

We reviewed the result of management's assessment with the Audit Committee of our Board of Directors.

- (c) Attestation report of the registered public accounting firm.

Not applicable.

- (d) Changes in internal control over financial reporting.

There have been no changes in the Company's ICFR identified in connection with the above evaluation that occurred during the last fiscal year that have materially affected, or are reasonably likely to materially affect, the Company's ICFR, other than the following:

- We continued to enforce the plan for remediation of the material weaknesses in ICFR as outlined in the Form 20-F for the year ended December 31, 2016, continued to improve internal control over financial reporting and conducted timely self-assessment.
- We completed a thorough review of the processes and procedures in the Company's financial reporting related to the areas where the material weaknesses existed and made necessary changes to streamline our processes.

Despite the material weaknesses and deficiencies reported above, our management believes that our consolidated financial statements included in this report fairly present in all material respects our financial condition, results of operations and cash flows for the periods presented and that this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report.

**ITEM 15T. CONTROLS AND PROCEDURES.**

Not applicable.

**ITEM 16. [RESERVED]**

**ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

The Company's Board of Directors has determined that Mr. Wencai Pan qualifies as an "audit committee financial expert" in accordance with applicable NASDAQ standards. The Company's Board of Directors has also determined that Mr. Pan and the other members of the Audit Committee are all "independent" in accordance with the applicable NASDAQ standards.

**ITEM 16B. CODE OF ETHICS.**

We have adopted a Code of Ethics and have attached it as an exhibit to this annual report. A copy of the Code of Ethics may be found on our company website.

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES .**

Prager Metis CPAs, LLC was appointed by the Company to serve as its independent registered public accounting firm for fiscal 2020, 2019 and 2018. Audit services provided by Prager Metis for fiscal 2020, 2019 and 2018 included the examination of the consolidated financial statements of the Company; and services related to periodic filings made with the SEC.

**Fees Paid To Independent Registered Public Accounting Firm**

***Audit Fees***

During fiscal 2020, 2019 and 2018, Prager Metis CPAs, LLC' fees for the annual audit of our financial statements and the periodic reviews of the financial statements were \$250,000, \$225,000 and \$215,000, respectively.

***Audit-Related Fees***

The Company has paid Prager Metis CPAs, LLC \$37,000, \$0 and \$0 for audit-related services in fiscal 2020, 2019 and 2018.

***Tax Fees***

The Company has not paid Prager Metis CPAs, LLC for tax services in fiscal 2020, 2019 and 2018.

***All Other Fees***

The Company has not paid Prager Metis CPAs, LLC other fees in fiscal 2020, 2019 and 2018.

***Audit Committee Pre-Approval Policies***

Before Prager Metis was engaged by the Company to render audit or non-audit services, the engagement was approved by the Company's audit committee. All services rendered by Prager Metis have been so approved.

***Percentage of Hours***

The percentage of hours expended on the principal accountants' engagement to audit our consolidated financial statements for 2020 that were attributed to work performed by persons other than Prager Metis's full-time permanent employees was less than 50%.

**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES.**

Not applicable.

**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS.**

Neither the Company nor any affiliated purchaser has purchased any shares or other units of any class of the Company's equity securities registered by the Company pursuant to Section 12 of the Securities Exchange Act during the fiscal year ended December 31, 2020.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT.**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE.**

Other than as described in this section, our corporate governance practices do not differ from those followed by domestic companies listed on the Nasdaq. NASDAQ Listing Rule 5635 generally provides that shareholder approval is required of U.S. domestic companies listed on Nasdaq prior to issuance (or potential issuance) of securities (i) equaling 20% or more of the company's common stock or voting power for less than the greater of market or book value (ii) resulting in a change of control of the company; and (iii) which is being issued pursuant to a stock option or purchase plan to be established or materially amended or other equity compensation arrangement made or materially amended. Notwithstanding this general requirement, NASDAQ Listing Rule 5615(a)(3)(A) permits foreign private issuers to follow their home country practice rather than these shareholder approval requirements. The British Virgin Islands do not require shareholder approval prior to any of the foregoing types of issuances. The Company, therefore, is not required to obtain such shareholder approval prior to entering into a transaction with the potential to issue securities as described above. The Board of Directors of the Company has elected to follow the Company's home country rules as to such issuances and will not be required to seek shareholder approval prior to entering into such a transaction.

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

### PART III

#### ITEM 17. FINANCIAL STATEMENTS.

See Item 18.

#### ITEM 18. FINANCIAL STATEMENTS.

The consolidated financial statements of Tantech Holdings Ltd are included at the end of this annual report, beginning with page F-1.

#### ITEM 19. EXHIBITS.

- 1.1 <sup>(1)</sup> [Articles of Association of Tantech Holdings Ltd](#)
- 1.2.1 <sup>(1)</sup> [Memorandum of Association of Tantech Holdings Ltd](#)
- 1.2.2 <sup>(1)</sup> [First Amended and Restated Memorandum of Association of Tantech Holdings Ltd](#)
- 2.1 <sup>(1)</sup> [Specimen Common Share Certificate](#)
- 2.2 <sup>(11)</sup> [Form of Warrant issued on September 29, 2017](#)
- 2.3 <sup>(8)</sup> [Form of Registered Investor Warrant issued on November 24, 2020](#)
- 2.4 <sup>(8)</sup> [Form of Unregistered Investor Warrant issued November 24, 2020](#)
- 2.5 <sup>(8)</sup> [Form of Placement Agent Warrant issued November 24, 2020](#)
- 4.1 <sup>(2)</sup> [Purchase Agreement by and among Registrant, Henglong Chen and Suzhou E-Motors Co., Limited dated May 2, 2016](#)
- 4.2 <sup>(3)</sup> [Long Term Supply Agreement between Registrant and Zhejiang Longquanzhixin Trading Co., Limited dated December 15, 2016](#)
- 4.3 <sup>(11)</sup> [Form of Stock Purchase Agreement, dated September 27, 2017, by and between the Company and the Investors](#)
- 4.4 <sup>(4)</sup> [Summary Translation of Share Purchase Agreement between Zhejiang Apeikesi Energy Co., Ltd and Tantech Energy Technology Co., Ltd dated December 14, 2017](#)
- 4.5 <sup>(5)</sup> [Translation of Share Transfer Agreement between Zhejiang Tantech Bamboo Technology Co., Ltd. and Lishui Ertai Trading Co. Ltd dated June 26, 2019](#)
- 4.6 <sup>(4)</sup> [Summary Translation of Lishui Xincai Share Purchase Agreement between Shanghai Shicai Minerals Co., Ltd and Tantech Holdings Ltd dated January 8, 2018](#)
- 4.7 <sup>(6)</sup> [Translation of Investment Agreement between Tantech Holdings \(Lishui\) Co., Ltd. and Jingning Zhonggang Mining Co., LTD dated November 29, 2019](#)
- 4.8 <sup>(6)</sup> [Translation of Supplementary Agreement among Tantech Holdings \(Lishui\) Co., Ltd., Jingning Zhonggang Mining Co., Ltd and Lishui Zhonggang Mining Co., Ltd. dated December 17, 2019](#)
- 4.9 <sup>(7)</sup> [Translation of Exclusive Management Consulting and Technology Service Agreement between Shanghai Jiamu Investment Management Co., Ltd and Hangzhou Wangbo Investment Management Co., Ltd. dated December 10, 2019](#)
- 4.10 <sup>(7)</sup> [Translation of Equity Pledge Agreement among Shanghai Jiamu Investment Management Co., Ltd, Xinyang Wang and Hangzhou Wangbo Investment Management Co., Ltd. dated December 10, 2019](#)



- 4.11 <sup>(7)</sup> [Translation of Exclusive Call Option Agreement among Shanghai Jiamu Investment Management Co., Ltd, Xinyang Wang and Hangzhou Wangbo Investment Management Co., Ltd. dated December 10, 2019](#)
- 4.12 <sup>(7)</sup> [Translation of Proxy Agreement among Shanghai Jiamu Investment Management Co., Ltd, Xinyang Wang and Hangzhou Wangbo Investment Management Co., Ltd. dated December 10, 2019](#)
- 4.13 <sup>(7)</sup> [Translation of Power of Attorney between Xinyang Wang and Zhengyu Wang dated December 10, 2019](#)
- 4.14 <sup>(7)</sup> [Translation of Equity Pledge Agreement among Shanghai Jiamu Investment Management Co., Ltd, Wangfeng Yan and Hangzhou Wangbo Investment Management Co., Ltd. dated May 15, 2020 with the effective date of December 10, 2019](#)
- 4.15 <sup>(7)</sup> [Translation of Exclusive Call Option Agreement among Shanghai Jiamu Investment Management Co., Ltd, Wangfeng Yan and Hangzhou Wangbo Investment Management Co., Ltd. dated May 15, 2020 with the effective date of December 10, 2019](#)
- 4.16 <sup>(7)</sup> [Translation of Proxy Agreement among Shanghai Jiamu Investment Management Co., Ltd, Wangfeng Yan and Hangzhou Wangbo Investment Management Co., Ltd. dated May 15, 2020 with the effective date of December 10, 2019](#)
- 4.17 <sup>(4)</sup> [Translation of Power of Attorney between Wangfeng Yan and Zhengyu Wang dated July 13, 2017](#)
- 4.18 <sup>(7)</sup> [Translation of Joint Statement among Zhengyu Wang, Wangfeng Yan, Xinyang Wang, Wangbo and Jiamu dated May 15, 2020 with the effective date of December 10, 2019](#)
- 4.19 <sup>(9)</sup> [Translation of Employment Agreement between the Registrant and Wangfeng Yan as the CEO dated December 6, 2019](#)
- 4.20 <sup>(9)</sup> [Translation of Employment Agreement between the Registrant and Weilin Zhang as the CFO dated June 26, 2019](#)
- 4.21 <sup>(9)</sup> [Translation of Employment Agreement between the Registrant and Mingqin Dong as the COO dated December 6, 2019](#)
- 4.22\* [Summary Translation of the Lease Agreement between Zhejiang Tantech Energy Technology Co., Ltd and Zhejiang Tantech Bamboo Charcoal Co., Ltd. dated December 8, 2020](#)
- 4.23\* [Translation of the Lease Agreement between Zhangjiagang Jinmao Investment Development Co. LTD and Shangchi Automobile Co., Ltd. dated August 8, 2020](#)
- 4.24\* [Summary Translation of the Lease Agreement between Shenzhen Xinrui Commercial Property Co., Ltd and Shenzhen Yimao New Energy Sales Co., Ltd. dated November 20, 2020](#)
- 4.25 <sup>(8)</sup> [Placement Agency Agreement, dated November 20, 2020, by and between the Company and Uninvest Securities, LLC](#)
- 4.26 <sup>(10)</sup> [Amendment No. 1 to Placement Agency Agreement, dated December 8, 2020, by and between the Company and Uninvest Securities, LLC](#)
- 4.27 <sup>(8)</sup> [Securities Purchase Agreement, dated as of November 20, 2020, by and between the Company and the Investors](#)

- 4.28<sup>(8)</sup> [Registration Rights Agreement, dated as of November 20, 2020, by and between the Company and the Investors](#)
- 4.29\* [Non-competition Agreement by and among Zhengyu Wang, Yefang Zhang, Farmmi, Inc., Tantech Holdings Ltd and CN Energy Group, Inc., dated March 29, 2021](#)
- 8.1\* [List of subsidiaries](#)
- 11.1<sup>(2)</sup> [Code of Ethics](#)
- 12.1\* [Certification of the principal executive officer of the Registrant pursuant to Rule 13a-14\(a\) or 15\(d\)-14\(a\) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 12.2\* [Certification of the principal financial officer of the Registrant pursuant to Rule 13a-14\(a\) or 15\(d\)-14\(a\) under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002](#)
- 13.1\* [Certification of the principal executive officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 13.2\* [Certification of the principal financial officer of the Registrant pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)
- 15.1<sup>(1)</sup> [2014 Equity Incentive Plan](#)
- 23.1\* [Consent Letter of Prager Metis CPAs, LLC](#)
- 99.1\* [Press release dated April 27, 2021 titled "Tantech Announces Full Year 2020 Financial Results"](#)
- 101.INS\* XBRL Instance Document.
- 101.SCH\* XBRL Taxonomy Extension Schema Document.
- 101.CAL\* XBRL Taxonomy Extension Calculation Linkbase Document.
- 101.DEF\* XBRL Taxonomy Extension Definition Linkbase Document.
- 101.LAB\* XBRL Taxonomy Extension Label Linkbase Document.
- 101.PRE\* XBRL Taxonomy Extension Presentation Linkbase Document.
- (1) Previously filed with the registration statement on Form F-1, File no. 333-198788, filed on September 16, 2014, as amended and incorporated herein by reference.
- (2) Previously filed on Form 6-K, dated May 2, 2016 and incorporated by reference.
- (3) Previously filed on Form 6-K, dated December 19, 2016 and incorporated by reference.
- (4) Previously filed with our annual report on Form 20-F, File no. 001-36885, filed on May 11, 2018 and incorporated herein by reference.
- (5) Previously filed on Form 6-K, dated June 27, 2019 and incorporated by reference.
- (6) Previously filed on Form 6-K, dated December 18, 2019 and incorporated by reference.
- (7) Previously filed on Form 6-K, dated May 20, 2020 and incorporated by reference.
- (8) Previously filed on Form 6-K, dated November 20, 2020 and incorporated by reference.
- (9) Previously filed with our annual report on Form 20-F, File no. 001-36885, filed on June 30, 2020 and incorporated herein by reference.
- (10) Previously filed on Form 6-K/A, dated December 8, 2020 and incorporated by reference.
- (11) Previously filed on Form 6-K, dated September 27, 2017 and incorporated by reference.
- \* Filed herewith.

**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

**Tantech Holdings Ltd**

By: /s/ Wangfeng Yan

Name: Wangfeng Yan

Title: Chief Executive Officer

Date: April 27, 2021

TANTECH HOLDINGS LTD AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of  
Tantech Holdings Ltd

### Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Tantech Holdings Ltd and subsidiaries (“the Company”) as of December 31, 2020 and 2019, and the related consolidated statements of comprehensive income (loss), stockholders’ equity and cash flows for each of the years in the three-year period ended December 31, 2020, and related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

#### *Valuation of Electric Vehicle Manufacturing License as of December 31, 2020*

The Company has an electric vehicle manufacturing license which has an indefinite life. At December 31, 2020, the aggregate amount of indefinite-lived intangible assets was approximately \$12 million. The Company recorded impairment charges in 2020 relating to the company's indefinite-lived intangible assets of \$12 million. As discussed in Note 11 to the consolidated financial statements, the Company tests its indefinite-lived intangible assets for impairment annually and whenever events or circumstances indicate that it is more likely than not that the impairment may have occurred.

Auditing the Company’s impairment test on Indefinite-lived Intangible Assets was complex due to the significant judgment required in determining the fair value of the reporting unit. In particular, the fair value estimate was sensitive to significant assumptions that require judgment, including the amount and timing of future cash flows (e.g. revenue growth rates) and the weighted average cost of capital (“discount rate”), which are affected by factors such as general market conditions and recent operating performance.

To test the estimated fair value of the Company's reporting unit, our audit procedures included, among others, evaluating the valuation methodology and the reasonableness of management’s revenue growth rate and gross margin forecasts. We compared the assumptions in the valuation process described above, used by management, to current industry and economic trends, historical Company results, changes to the Company’s business model, regulatory changes, customer base or revenue mix and other relevant factors. We evaluated the Company’s internal and external communications to identify any corroboratory or contrary evidence. We assessed the historical accuracy of management’s estimates and evaluated management’s sensitivity assessment of the subjective assumptions to evaluate the changes in the analysis that would result from changes in these assumptions.

*/s/ Prager Metis CPAs, LLC*

We have served as the Company’s auditor since 2018

Hackensack, New Jersey  
April 27, 2021

**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Balance Sheets**

	December 31, 2020	December 31, 2019
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents (Note 3 at VIE)	\$ 37,119,195	\$ 12,440,457
Restricted cash (Note 3 at VIE)	220,109	205,520
Accounts receivable, net (Note 3 at VIE)	34,410,597	39,352,408
Inventories, net (Note 3 at VIE)	671,251	595,627
Advances to suppliers, net (Note 3 at VIE)	6,854,461	13,079,889
Advances to suppliers – related party	1,533,000	-
Prepaid taxes (Note 3 at VIE)	1,046,667	2,396,349
Prepaid expenses and other receivables, net (Note 3 at VIE)	45,467	91,377
<b>Total Current Assets (Note 3 at VIE)</b>	<b>81,900,747</b>	<b>68,161,627</b>
<b>Property, plant and equipment, net (Note 3 at VIE)</b>	<b>2,477,912</b>	<b>2,700,034</b>
<b>Other Assets</b>		
Manufacturing rebate receivable (Note 3 at VIE)	5,755,237	7,746,116
Intangible assets, net (Note 3 at VIE)	664,033	12,959,017
Long-term Investment	25,497,316	23,883,983
<b>Total Other Assets (Note 3 at VIE)</b>	<b>31,916,586</b>	<b>44,589,116</b>
<b>Total Assets (Note 3 at VIE)</b>	<b>\$ 116,295,245</b>	<b>\$ 115,450,777</b>
<b>Liabilities and Stockholders' Equity</b>		
<b>Current Liabilities</b>		
Short-term bank loans	\$ 5,564,790	\$ 6,861,208
Bank acceptance notes payable (Note 3 at VIE)	1,753,109	205,520
Accounts payable (Note 3 at VIE)	1,543,994	1,650,851
Due to related parties (Note 3 at VIE)	2,019,087	1,838,603
Customer deposits (Note 3 at VIE)	3,183,088	6,742,659
Taxes payable (Note 3 at VIE)	571,354	102,704
Due to third parties	306,600	287,200
Accrued liabilities and other payables (Note 3 at VIE)	1,861,835	1,444,896
<b>Total Current Liabilities (Note 3 at VIE)</b>	<b>16,803,857</b>	<b>19,133,641</b>
Deferred tax liability (Note 3 at VIE)	-	1,784,875
<b>Total Liabilities (Note 3 at VIE)</b>	<b>16,803,857</b>	<b>20,918,516</b>
<b>Stockholders' Equity</b>		
Common stock, \$0.001 par value, 50,000,000 shares authorized, 35,894,097 and 28,853,242 shares issued and outstanding as of December 31, 2020 and 2019, respectively	35,894	28,853
Additional paid-in capital	48,392,181	39,310,178
Statutory reserves	6,437,506	6,379,276
Retained earnings	45,480,031	52,058,681
Accumulated other comprehensive loss	(1,493,070)	(7,590,943)
<b>Total Stockholders' Equity attributable to the Company</b>	<b>98,852,542</b>	<b>90,186,045</b>
Noncontrolling interest	638,846	4,346,216
<b>Total Stockholders' Equity</b>	<b>99,491,388</b>	<b>94,532,261</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 116,295,245</b>	<b>\$ 115,450,777</b>

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

**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Statements of Comprehensive Income (Loss)**

	For the Years Ended December 31,		
	2020	2019	2018
<b>Revenues</b>	\$ 42,283,670	\$ 49,230,570	\$ 29,561,399
<b>Cost of revenues</b>	37,807,297	43,253,070	21,532,319
<b>Gross Profit</b>	<u>4,476,373</u>	<u>5,977,500</u>	<u>8,029,080</u>
<b>Operating expenses</b>			
Selling expenses	977,201	319,946	320,479
General and administrative expenses	955,210	4,655,382	4,971,804
Impairment of goodwill and intangible asset	11,998,606	9,584,000	-
Research and development expenses	890,316	327,260	386,628
Total operating expenses	<u>14,821,333</u>	<u>14,886,588</u>	<u>5,678,911</u>
<b>Income (loss) from operations</b>	<u>(10,344,960)</u>	<u>(8,909,088)</u>	<u>2,350,169</u>
<b>Other income (expenses)</b>			
Interest income	50,732	53,060	56,894
Interest expense	(300,125)	(443,262)	(626,343)
Other (loss) income, net	(39,530)	3,669	247,069
Total other expenses	<u>(288,923)</u>	<u>(386,533)</u>	<u>(322,380)</u>
<b>(Loss) income before income tax expense (credit)</b>	(10,633,883)	(9,295,621)	2,027,789
<b>Income tax expense (credit)</b>	(611,655)	363,662	1,031,158
<b>Net (loss) income from continuing operations</b>	<u>(10,022,228)</u>	<u>(9,659,283)</u>	<u>996,631</u>
<b>Discontinued operation:</b>			
Income from discontinued operations, net of tax	-	270,479	83,367
Loss from disposal of discontinued operations	-	(569,891)	-
<b>Net (loss) income from discontinued operations</b>	<u>-</u>	<u>(299,412)</u>	<u>83,367</u>
<b>Net (loss) income</b>	(10,022,228)	(9,958,695)	1,079,998
Less: net loss attributable to noncontrolling interest from continuing operations	(3,501,808)	(3,601,728)	(896,769)
<b>Net (loss) income attributable to common stockholders of Tantech Holdings Ltd</b>	<u>\$ (6,520,420)</u>	<u>\$ (6,356,967)</u>	<u>\$ 1,976,767</u>
<b>Net (loss) income</b>	(10,022,228)	(9,958,695)	1,079,998
<b>Other comprehensive income (loss):</b>			
Foreign currency translation adjustment	5,892,311	(5,494,731)	(949,689)
<b>Comprehensive (loss) income</b>	(4,129,917)	(15,453,426)	130,309
Less: Comprehensive loss attributable to noncontrolling interest	(3,707,370)	(3,571,880)	(881,364)
<b>Comprehensive income (loss) attributable to common stockholders of Tantech Holdings Ltd</b>	<u>\$ (422,547)</u>	<u>\$ (11,881,546)</u>	<u>\$ 1,011,673</u>
<b>(Loss) earnings per share - Basic and Diluted</b>			
Continuing operations	<u>\$ (0.22)</u>	<u>\$ (0.21)</u>	<u>\$ 0.07</u>
Discontinued operations	<u>\$ 0.00</u>	<u>\$ (0.01)</u>	<u>\$ 0.00</u>
Total	<u>\$ (0.22)</u>	<u>\$ (0.22)</u>	<u>\$ 0.07</u>
<b>Weighted Average Shares Outstanding - Basic and Diluted</b>			
Continuing operations and discontinued operations	<u>29,566,243</u>	<u>28,853,242</u>	<u>28,745,571</u>

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

**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Statements of Stockholders' Equity**  
**For the Years Ended December 31, 2020, 2019 and 2018**

	Common Stock		Additional Paid in Capital	Accumulated Other Comprehensive Income (loss)	Statutory Reserves	Retained Earnings	Non Controlling Interest	Total Stockholders' Equity
	Shares	Amount						
Balance at December 31, 2017	28,703,242	\$ 28,703	\$ 39,067,328	\$ (1,101,270)	\$ 6,461,788	\$ 56,356,369	\$ 8,799,460	\$ 109,612,378
Issuance of common stock for service	150,000	150	242,850	-	-	-	-	243,000
Foreign currency translation adjustment	-	-	-	(965,094)	-	-	15,405	(949,689)
Net income (loss)	-	-	-	-	-	1,976,767	(896,769)	1,079,998
Balance at December 31, 2018	28,853,242	28,853	39,310,178	(2,066,364)	6,461,788	58,333,136	7,918,096	109,985,687
Foreign currency translation adjustment	-	-	-	(5,524,579)	-	-	29,848	(5,494,731)
Net loss	-	-	-	-	(82,512)	(6,274,455)	(3,601,728)	(9,958,695)
Balance at December 31, 2019	28,853,242	28,853	39,310,178	(7,590,943)	6,379,276	52,058,681	4,346,216	94,532,261
Issuance of common stock for private placement	6,060,608	6,061	9,048,939	-	-	-	-	9,055,000
Exercise of 2017 warrants	944,655	945	(713)	-	-	-	-	232
Issuance of common stock for service	35,592	35	33,777	-	-	-	-	33,812
Foreign currency translation adjustment	-	-	-	6,097,873	-	-	(205,562)	5,892,311
Appropriation of retained earnings to statutory reserve fund	-	-	-	-	58,230	(58,230)	-	-
Net loss	-	-	-	-	-	(6,520,420)	(3,501,808)	(10,022,228)
Balance at December 31, 2020	<u>35,894,097</u>	<u>\$ 35,894</u>	<u>\$ 48,392,181</u>	<u>\$ (1,493,070)</u>	<u>\$ 6,437,506</u>	<u>\$ 45,480,031</u>	<u>\$ 638,846</u>	<u>\$ 99,491,388</u>

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



**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Statements of Cash Flows**

	For the Years Ended December 31,		
	2020	2019	2018
<b>Cash flows from operating activities</b>			
Net (loss) income	\$ (10,022,228)	\$ (9,958,695)	\$ 1,079,998
Net loss (income) from discontinued operations	-	299,412	(83,367)
Net (loss) income from continuing operations	(10,022,228)	(9,659,283)	996,631
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
(Reversal of) Allowance for doubtful accounts - accounts receivable	(845,416)	1,297,752	910,811
(Reversal of) Allowance for doubtful accounts - advance to suppliers	(378,233)	164,220	777,848
(Reversal of) Allowance for doubtful accounts – other receivables	(84,573)	705,400	66,305
Allowance for doubtful accounts - due from related party	-	-	364,288
Inventory reserve	92,064	1,030,236	700,379
Impairment of goodwill and intangible asset	11,998,606	9,584,000	-
Decrease in deferred tax liability	(1,799,791)	(165,500)	-
Depreciation expense	436,427	462,639	628,144
Amortization of intangible asset	441,489	441,489	443,318
Amortization of prepaid consulting expense	-	140,738	102,263
Loss (gain) from disposal of property, plant and equipment	68,614	(8,047)	(44,814)
Issuance of common stock for service	33,812	-	-
<b>Changes in operating assets and liabilities:</b>			
Accounts receivable - non-related party	8,024,036	(9,879,682)	7,023,546
Accounts receivable - related party	-	-	3,249,359
Advances to suppliers	7,093,022	415,727	(3,555,851)
Advances to suppliers, non-current	-	-	1,558,916
Advances to suppliers - related party	(1,448,000)	-	-
Inventory	(125,492)	242,142	(147,485)
Prepaid expenses and other receivables	133,768	9,127	767,849
Manufacturing rebate receivable	2,374,720	1,563,840	(644,959)
Accounts payable	(206,261)	(751,363)	(2,621,226)
Accrued liabilities and other payables	313,552	(78,923)	49,492
Customer deposits	(3,792,409)	6,184,836	(115,771)
Collection of receivable from discontinued operations	-	8,962,187	-
Taxes payable	1,863,853	(597,392)	573,660
<b>Net cash provided by continuing operations</b>	<b>14,171,560</b>	<b>10,064,143</b>	<b>11,082,703</b>
<b>Net cash provided by discontinued operations</b>	<b>-</b>	<b>4,632,769</b>	<b>3,582,177</b>
<b>Net cash provided by operating activities</b>	<b>14,171,560</b>	<b>14,696,912</b>	<b>14,664,880</b>
<b>Cash flows from investing activities</b>			
Acquisition of property, plant and equipment	(144,806)	(92,369)	(559,038)
Proceeds from disposal of property, plant and equipment	21,842	16,580	54,089
Additions to intangible assets	-	-	(2,585)
Payment for investment	-	(6,707,570)	(17,448,000)
Proceeds from disposition of subsidiaries	-	854,567	-
<b>Net cash used in continuing operations</b>	<b>(122,964)</b>	<b>(5,928,792)</b>	<b>(17,955,534)</b>
<b>Net cash used in discontinued operations</b>	<b>-</b>	<b>(1,522)</b>	<b>(39,976)</b>
<b>Net cash used in investing activities</b>	<b>(122,964)</b>	<b>(5,930,314)</b>	<b>(17,995,510)</b>
<b>Cash flows from financing activities</b>			
Proceeds from (repayment of) loans from third parties	-	(2,823,890)	2,455,806
Notes receivable	-	-	14,540
Bank acceptance notes payable, net of repayment	1,448,667	(1,823,003)	(4,560,185)
Proceeds from bank loans	9,568,384	6,918,544	10,291,412
Repayment of bank loans	(11,230,688)	(7,352,944)	(7,835,606)
Proceeds from (repayment of) loans from related parties, net	98,474	(378,833)	(1,175,971)
Proceeds from issuance of common stock and warrants	9,055,232	-	-
<b>Net cash provided by (used in) continuing operations</b>	<b>8,940,069</b>	<b>(5,460,126)</b>	<b>(810,004)</b>
<b>Net cash provided by discontinued operations</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net cash provided by (used in) financing activities</b>	<b>8,940,069</b>	<b>(5,460,126)</b>	<b>(810,004)</b>
Effect of exchange rate changes on cash, restricted cash and cash equivalents	1,704,662	(530,288)	390,992
<b>Net increase (decrease) in cash, restricted cash and cash equivalents</b>	<b>24,693,327</b>	<b>2,776,184</b>	<b>(3,749,642)</b>
<b>Cash, restricted cash and cash equivalents, beginning of year</b>	<b>12,645,977</b>	<b>9,869,793</b>	<b>13,619,435</b>
<b>Cash, restricted cash and cash equivalents, end of year</b>	<b>\$ 37,339,304</b>	<b>\$ 12,645,977</b>	<b>\$ 9,869,793</b>
<b>Supplemental disclosure information:</b>			

Income taxes paid	\$ 436,566	\$ 1,105,876	\$ 1,044,480
Interest paid	\$ 308,690	\$ 439,869	\$ 608,048
<b>Supplemental non-cash activities:</b>			
Common shares issued for service	\$ 33,812	\$ -	\$ 243,000

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

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 – Organization and nature of business**

Tantech Holdings Ltd (“Tantech” or “Tantech BVI”) is a holding company established under the laws of the British Virgin Islands on November 9, 2010. Through its 100% owned operating subsidiaries and entities controlled through VIE agreements, Tantech engages in the research and development, production and distribution of various products made from bamboo, manufacture and selling electric vehicles and non-electric vehicles, as well as investment in mining exploration. Details of the subsidiaries of the Company and their principal business activities are set out below:

<b>Name of Entity</b>	<b>Date of Incorporation</b>	<b>Place of Incorporation</b>	<b>% of Ownership</b>	<b>Principal Activities</b>
Tantech Holdings Ltd (“Tantech” or “Tantech BVI”)	November 9, 2010	BVI	Parent	Holding Company
USCNHK Group Limited (“USCNHK”)	October 17, 2008	Hong Kong	100% by the Parent	Holding Company
EAG International Vantage Capitals Limited (“Euroasia”)	April 27, 2015	Hong Kong	100% by the Parent	Holding Company
Tantech Holdings (Lishui) Co. Ltd. (“Lishui Tantech”)	April 7, 2016	Lishui, Zhejiang Province, China	100% by USCNHK	Holding Company
Euroasia New Energy Automotive (Jiangsu) Co. Ltd. (“Euroasia New Energy”)	October 24, 2017	Zhangjia Gang, Jiangsu Province, China	100% by Euroasia	Holding Company
Shanghai Jiamu Investment Management Co., Ltd (“Jiamu”)	July 14, 2015	Shanghai, China	100% by Euroasia	Holding Company
Hangzhou Wangbo Investment Management Co., Ltd (“Wangbo”)	February 2, 2016	Hangzhou, Zhejiang Province, China	100% by Jiamu via VIE arrangements	Holding Company
Hangzhou Jiyi Investment Management Co., Ltd (“Jiyi”)	February 2, 2016	Hangzhou, Zhejiang Province, China	100% by Jiamu	Holding Company
Shangchi Automobile Co., Ltd. (“Shangchi Automobile”)	Acquired on July 12, 2017	Zhangjia Gang, Jiangsu Province, China	51% by Wangbo and 19% by Jiyi	Manufacturing and sale of specialty electric and non-electric vehicles and power batteries
Shenzhen Yimao New Energy Sales Co., Ltd. (“Shenzhen Yimao”)	November 13, 2018	Shenzhen, Guangdong Province, China	100% by Shangchi Automobile	Electric vehicles sales
Lishui Xincai Industrial Co., Ltd. (“Lishui Xincai”)	December 14, 2017	Lishui, Zhejiang Province, China	100% by Lishui Tantech	Holding Company
Zhejiang Tantech Bamboo Charcoal Co., Ltd. (“Tantech Charcoal”)	September 5, 2002	Lishui, Zhejiang Province, China	100% by Lishui Xincai	Manufacturing and sale of various products made from bamboo and charcoal; trading business
Lishui Jikang Energy Technology Co., Ltd. (“Jikang Energy”)	January 2, 2020	Lishui, Zhejiang Province, China	100% by Lishui Xincai	Holding Company
Hangzhou Tanbo Tech Co., Ltd. (“Tanbo Tech”)	December 8, 2015	Hangzhou, Zhejiang Province, China	100% by Lishui Xincai	Exploring business opportunities outside Lishui area
Zhejiang Tantech Bamboo Technology Co., Ltd. (“Tantech Bamboo”)	December 31, 2005	Lishui, Zhejiang Province, China	100% by Jikang Energy	Manufacturing and sale of various products made from bamboo
Zhejiang Babiku Charcoal Co., Ltd. (“Tantech Babiku”)	October 20, 2015	Lishui, Zhejiang Province, China	-	Discontinued in fiscal 2018 (See Note 5)
Zhejiang Zhongzhu Tourism Development Co., Ltd. (“Lishui Zhongzhu”)	November 18, 2015	Lishui, Zhejiang Province, China	-	Discontinued in fiscal 2018 (See Note 5)
Zhejiang Tantech Energy Tech Co., Ltd. (“Tantech	September 24, 2008	Lishui, Zhejiang	-	Discontinued in fiscal

Energy”)		Province, China		2019 (See Note 5)
Zhejiang Shangchi New Energy Automobile Co., Ltd. (“Zhejiang Shangchi”)	November 12, 2020	Lishui, Zhejiang Province, China	100% by Lishui Tantech	Sales of automobiles
Lishui Smart New Energy Automobile Co., Ltd. (“Lishui Smart”)	November 16, 2020	Lishui, Zhejiang Province, China	100% by Lishui Tantech	Research, development and manufacturing new energy automobiles

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 – Organization and nature of business (continued)**

Lishui Xincai was established on December 14, 2017 by an unrelated third party. On January 8, 2018, the third party transferred all of its shares in Lishui Xincai to Lishui Tantech. Since then, Lishui Xincai has been Lishui Tantech's wholly owned subsidiary. On December 30, 2019, Tantech Bamboo transferred all of its shares in its wholly-owned subsidiary Tantech Charcoal to Lishui Xincai.

On January 2, 2020, Jikang Energy was established as a wholly owned subsidiary of Lishui Xincai with authorized share capital of RMB 5 million. Jikang Energy is a holding company and does not conduct any substantial business.

On January 3, 2020, Tantech Bamboo transferred all of its shares in its wholly-owned subsidiary Tanbo Tech to Lishui Xincai.

On January 10, 2020, Lishui Tantech transferred all of its shares in its wholly-owned subsidiary Tantech Bamboo to Jikang Energy.

After the above transfers, Tantech Bamboo becomes the wholly-owned subsidiary of Jikang Energy. Jikang Energy, Tanbo Tech and Tantech Charcoal become the wholly-owned subsidiaries of Lishui Xincai.

**Note 2 – Summary of significant accounting policies**

Principal of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP"). The consolidated financial statements include the financial statements of Tantech BVI and its subsidiaries, and entities controlled through a series of agreements known as variable interest agreements ("VIE") (collectively, the "Company"). All significant inter-company balances and transactions are eliminated upon consolidation.

Non-controlling interest

Non-controlling interest represents 30% of the equity interest in Shangchi Automobile and its subsidiary Shenzhen Yimao owned by Zhangjiagang Jinke Chuangtou Co., Ltd., which is not under the Company's control.

Business Combinations

Business combinations are accounted for under the purchase method of accounting. Under the purchase method, assets and liabilities of the business acquired are recorded at their estimated fair values as of the date of acquisition with any excess of the cost of the acquisition over the fair value of the net tangible and intangible assets acquired recorded as goodwill. Results of operations of the acquired business are included in the statement of comprehensive income from the date of acquisition.

Reclassification

Certain prior year amounts have been reclassified to conform to the current year presentation, such as reclassification of customer advance to due to related parties, presentation of discontinued operations due to disposition of Tantech Energy in fiscal 2019. These reclassifications had no effect on the reported revenues, net income (loss) and cash flows.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Discontinued operation

In accordance with ASU No. 2014-08, Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity, a disposal of a component of an entity or a group of components of an entity is required to be reported as discontinued operations if the disposal represents a strategic shift that has (or will have) a major effect on an entity's operations and financial results when the components of an entity meets the criteria in paragraph 205-20-45-1E to be classified as held for sale. When all of the criteria to be classified as held for sale are met, including management, having the authority to approve the action, commits to a plan to sell the entity, the major current assets, other assets, current liabilities, and noncurrent liabilities shall be reported as components of total assets and liabilities separate from those balances of the continuing operations. At the same time, the results of all discontinued operations (which we presented as operations to be disposed and operations disposed), less applicable income taxes (benefit), shall be reported as components of net income (loss) separate from the net income (loss) of continuing operations in accordance with ASC 205-20-45.

Use of Estimates

In preparing the consolidated financial statements in conformity with US GAAP, management makes estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the dates of the consolidated financial statements, as well as the reported amounts of revenues and expenses during the reporting year. Significant items subject to such estimates and assumptions include the fair value estimates used in the purchase price allocation, the useful lives of property and equipment and intangible assets, allowances pertaining to the allowance for doubtful accounts and advance to suppliers, the valuation of inventories, the impairment of long-lived assets, and the realizability of deferred tax assets.

Fair Value of Financial Instruments

The Financial Accounting Standards Board's ("FASB") Accounting Standards Codification ("ASC") Topic 820, "Fair Value Measurements", defines fair value, establishes a three-level valuation hierarchy for fair value measurements and enhances disclosure requirements.

The three levels are defined as follows:

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

Level 2 - inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, quoted market prices for identical or similar assets in markets that are not active, inputs other than quoted prices that are observable, and inputs derived from or corroborated by observable market data.

Level 3 - inputs to the valuation methodology are unobservable.

Unless otherwise disclosed, the fair value of the Company's financial instruments including cash, restricted cash, accounts receivable, advances to suppliers, other receivables, accounts payable, customer deposits, accrued expenses, short term bank loans and bank acceptance notes payable approximates their recorded values due to their short-term maturities.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Cash and cash equivalents

For purposes of the statements of cash flows, the Company considers all highly liquid instruments purchased with an original maturity of three months or less and money market accounts to be cash equivalents. All cash balances are in bank accounts in PRC and are not insured by the Federal Deposit Insurance Corporation or other programs.

Restricted Cash

Restricted cash represents required cash deposits as a part of collateral for bank acceptance notes payable and letters of credit. The Company is required to maintain 0% to 100% of the balance of the bank acceptance notes payable in restricted cash to ensure future credit availability. The Company earns interest at a variable rate per month on this restricted cash.

Concentrations of credit risk

Financial instruments which potentially subject the Company to concentrations of credit risk consist principally of cash, trade accounts receivable and advances to suppliers. All of the Company's cash is maintained with banks within the People's Republic of China of which no deposits are covered by insurance. The Company has not experienced any losses in such accounts. A significant portion of the Company's sales are credit sales which are primarily to customers whose ability to pay is dependent upon the industry economics prevailing in these areas. The Company also makes cash advances to certain suppliers to ensure the stable supply of key raw materials. The Company performs ongoing credit evaluations of its customers and key suppliers to help further reduce credit risk.

Accounts receivable

Accounts receivable are presented at invoiced amount net of an allowance for doubtful accounts. The Company maintains an allowance for doubtful accounts for estimated losses. The Company reviews its accounts receivable on a periodic basis and makes general and specific allowances when there is doubt as to the collectability of individual balances. In evaluating the collectability of individual receivable balances, the Company considers many factors, including the age of the balance, customer's payment history, its current credit-worthiness and current economic trends. Accounts are written off after efforts at collection prove unsuccessful.

Inventory

The Company values its inventories at the lower of cost, determined on a weighted average basis, or net realizable value. The Company reviews its inventories periodically to determine if any reserves are necessary for potential obsolescence or if a write-down is necessary if the carrying value exceeds net realizable value.

Advances to suppliers

In order to ensure a steady supply of raw materials, the Company is required from time to time to make cash advances when placing its purchase orders. The Company reviews its advances to suppliers on a periodic basis and makes general and specific allowances when there is doubt as to the ability of a supplier to refund an advance or provide supplies to the Company.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Property and Equipment and Construction in Progress

Property and equipment are stated at cost less accumulated depreciation. The cost of an asset comprises its purchase price and any directly attributable costs of bringing the asset to its present working condition and location for its intended use.

Depreciation is computed on a straight-line basis over the estimated useful lives of the related assets. The estimated useful lives for significant property and equipment are as follows:

Buildings	20 years
Machinery and equipment	5 - 10 years
Transportation equipment	4 - 5 years
Office equipment	4 - 5 years
Electronic equipment	3 - 5 years

Repairs and maintenance costs are normally charged to earnings in the year in which they are incurred. In situations where it can be clearly demonstrated that the expenditure has resulted in an increase in the future economic benefits expected to be obtained from the use of the asset, the expenditure is capitalized as an additional cost of the asset.

Construction in progress includes direct costs of construction or acquisition of equipment, interest expense associated with the loans used for the construction and design fees incurred. Capitalization of these costs ceases and the construction in progress is transferred to plant and equipment when substantially all the activities necessary to prepare the assets for their intended use are completed. No depreciation is provided until it is completed and ready for its intended use.

Intangible assets

Intangible assets are acquired individually or as part of a group of assets, and are initially recorded at cost. The cost of a group of assets acquired in a transaction is allocated to the individual assets based on their relative fair values. Intangible assets are carried at cost less accumulated amortization and any recorded impairment. Intangible assets with finite useful lives are amortized using a straight-line method over the period of estimated useful life.

The estimated useful lives of the Company's intangible assets are as follows:

	<b>Estimated Useful Life</b>
Licenses and permits	Indefinite
Software	5 - 10 years
Land use right	50 years
Patents	10 years

The Company evaluates intangible assets for impairment whenever events or changes in circumstances indicate that the assets might be impaired.



**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Goodwill

Goodwill represents the excess of the consideration over the fair value of the net assets acquired at the date of acquisition. Goodwill is not amortized but rather tested for impairment at least annually at the reporting unit level by applying a fair-value based test in accordance with accounting and disclosure requirements for goodwill and other indefinite-lived intangible assets. This test is performed by management annually or more frequently if the Company believes impairment indicators are present. The Company has the option to assess qualitative factors first to determine whether it is necessary to perform the two-step test in accordance with ASC 350-20, Intangibles - Goodwill and Other. If the Company believes, as a result of the qualitative assessment, that it is more-likely-than-not that the fair value of the reporting unit is less than its carrying amount, the two-step quantitative impairment test described above is required. Otherwise, no further testing is required. In the qualitative assessment, the Company considers primary factors such as industry and market considerations, overall financial performance of the reporting unit, and other specific information related to the operations.

In performing the two-step quantitative impairment test, the first step compares the carrying amount of the reporting unit to the fair value of the reporting unit based on estimated fair value using the income approach. If the fair value of the reporting unit exceeds the carrying value of the reporting unit, goodwill is not impaired and the Company is not required to perform further testing. If the carrying value of the reporting unit exceeds the fair value of the reporting unit, then the Company must perform the second step of the impairment test in order to determine the implied fair value of the reporting unit's goodwill. The fair value of the reporting unit is allocated to its assets and liabilities in a manner similar to a purchase price allocation in order to determine the implied fair value of the reporting unit's goodwill. If the carrying amount of the goodwill is greater than its implied fair value, the excess is recognized as an impairment loss in general and administrative expenses.

As of December 31, 2019, the Company wrote off the goodwill acquired from the acquisition of Shangchi Automobile (formerly known as Suzhou E-Motors) in fiscal 2017 of \$8,480,668.

Long term investments

The Company accounts for investment in equity investees over which it has significant influence but does not own a majority of the equity interest or lack of control using the equity method. For investment in equity investees over which the Company does not have significant influence or the underlying shares the Company invested in are not considered in-substance common stock and have no readily determinable fair value, the cost method accounting is applied.

The Company records the equity method investments at historical cost and subsequently adjusts the carrying amount each period for share of the earnings or losses of the investee and other adjustments required by the equity method of accounting. Dividends received from the equity method investments are recorded as reductions in the cost of such investments. The Company records the cost method investments at historical cost and subsequently record any dividends received from the net accumulated earnings of the investee as income. Dividends received in excess of earnings are considered a return of investment and are recorded as reductions in the cost of the investments.

Investment in equity investees are evaluated for impairment when facts or circumstances indicate that the fair value of the investment is less than its carrying value. An impairment is recognized when a decline in fair value is determined to be other-than-temporary. The Company reviews several factors to determine whether a loss is other-than-temporary. These factors include, but are not limited to, the: (i) nature of the investment; (ii) cause and duration of the impairment; (iii) extent to which fair value is less than cost; (iv) financial condition and near term prospects of the investments; and (v) ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Impairment of Long-Lived Assets

The Company evaluates its long-lived assets for impairment whenever events or changes in circumstances, such as a significant adverse change to market conditions that will impact the future use of the assets, indicate that the carrying amount of an asset may not be fully recoverable. When these events occur, the Company evaluates the recoverability of long-lived assets by comparing the carrying amount of the assets to the future undiscounted cash flows expected to result from the use of the assets and their eventual disposition. If the sum of the expected undiscounted cash flows is less than the carrying amount of the assets, the Company recognizes an impairment loss based on the excess of the carrying amount of the assets over their fair value. Fair value is generally determined by discounting the cash flows expected to be generated by the assets, when the market prices are not readily available.

Customer Deposits

Customer deposits represent amounts received from customers in advance of shipments relating to the sales of the Company's products.

Due to Third Parties

Due to third parties represent amounts the Company borrowed from third parties for working capital purpose. The due to third parties balance are unsecured, interest-free and due upon demand. As of December 31, 2020 and 2019, the due to third parties balance amounted to \$306,600 and \$287,200, respectively.

Leases

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-02, Leases. The standard requires lessees to recognize lease assets and lease liabilities on the balance sheet and requires expanded disclosures about leasing arrangements. The new standard establishes a right-of-use model ("ROU") that requires a lessee to recognize a ROU asset and lease liability on the balance sheet for all leases with a term longer than 12 months.

The Company adopted this standard on January 1, 2019 on a modified retrospective basis and elected the practical expedients permitted under the transition guidance, which allows the Company to carryforward the historical lease classification, the assessment on whether a contract is or contains a lease, and the initial direct costs for any leases that exist prior to adoption of the new standard. Leases with an initial term of 12 months or less are not recognized on the balance sheet and the associated lease payments are included in the consolidated statements of comprehensive income (loss) on a straight-line basis over the lease term.

The new standard has no material effect on the consolidated financial statements as the Company does not have a lease with a term longer than 12 months.

Revenue Recognition

The Company adopted ASC Topic 606 Revenue from Contracts with Customers ("ASC 606") on January 1, 2018 using the modified retrospective approach. There is no adjustment to the opening balance of retained earnings at January 1, 2018 since there was no change to the timing and pattern of revenue recognition upon adoption of ASC 606. Under ASC 606, revenue is recognized when control of promised goods or services is transferred to the Company's customers in an amount of consideration to which an entity expects to be entitled to in exchange for those goods or services.

The Company's revenues are primarily derived from the following sources:

**Sales of products:** The Company recognizes sales revenue, net of sales taxes and estimated sales returns, at the time the product is delivered to the customer and control is transferred (point of sale).

**Commission income:** The Company acts as an agent without assuming the risks and rewards of ownership of the goods and reports the revenue on a net basis. Revenue is recognized based on the completion of the contracted service.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Government manufacturing rebate income: The Company sells electric vehicles in China and is eligible for a government manufacturing rebate on each qualifying electric vehicle sold. The government manufacturing rebates are recognized as part of revenue when sales are finalized, amount of rebates can be reasonably estimated and collection is assured. The collectability of rebates can be assured as long as the sales are deemed qualifying based on the criteria set by the government.

Revenue is reported net of all value added taxes. The Company does not routinely permit customers to return products and historically, customer returns have been immaterial.

Cost of Revenues

Cost of revenues includes cost of raw materials purchased, inbound freight cost, cost of direct labor, depreciation expense and other overhead. Write-down of inventory for lower of cost or net realizable value adjustments is also recorded in cost of revenues.

Shipping and Handling

Shipping and handling costs are expensed as incurred and included in selling expenses.

Subsidy Income

The Company periodically receives various government grants such as “High Technology Projects Subsidy” and “Scientific Research Grant”. There is no guarantee the Company will continue to receive such grants in the future.

Foreign Currency Translation

The Company’s financial information is presented in U.S. dollars. The functional currency of the Company’s subsidiaries in the PRC is the RMB, the currency of the PRC. Any subsidiary transactions, which are denominated in currencies other than RMB, are translated into RMB at the exchange rate quoted by the People’s Bank of China prevailing at the dates of the transactions, and exchange gains and losses are included in the statements of comprehensive income (loss) as foreign currency transaction gain or loss. The consolidated financial statements of the Company have been translated into U.S. dollars in accordance with ASC 830, “Foreign Currency Matters”. The financial information is first prepared in RMB and then is translated into U.S. dollars at period-end exchange rates for assets and liabilities and average exchange rates for revenue and expenses. Capital accounts are translated at their historical exchange rates when the capital transactions occurred. The effects of foreign currency translation adjustments are included as a component of accumulated other comprehensive income in stockholders’ equity. Cash flows from the Company’s operations are calculated based upon the local currencies using the average translation rate. As a result, amounts related to assets and liabilities reported on the statements of cash flows will not necessarily agree with changes in the corresponding balances on the balance sheets.

The following table outlines the currency exchange rates that were used in creating the consolidated financial statements in this report:

	<b>December 31, 2020</b>		<b>December 31, 2019</b>		<b>December 31, 2018</b>	
US\$: RMB exchange rate	Period End	\$ 0.1533	Period End	\$ 0.1436	Period End	\$ 0.1513
	Average	\$ 0.1448	Average	\$ 0.1448	Average	\$ 0.1454

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Comprehensive Income (loss)

Comprehensive income (loss) consists of two components, net income (loss) and other comprehensive income (loss). Other comprehensive income (loss) refers to revenue, expenses, gains and losses that under GAAP are recorded as an element of stockholders' equity but are excluded from net income (loss). Other comprehensive income (loss) consists of foreign currency translation adjustment from those subsidiaries not using the U.S. dollar as their functional currency.

Income Taxes

The Company's subsidiaries in China are subject to the income tax laws of the PRC. No taxable income was generated outside the PRC for the years ended December 31, 2020, 2019 and 2018. The Company accounts for income taxes in accordance with ASC 740, "Income Taxes". ASC 740 requires an asset and liability approach for financial accounting and reporting for income taxes and allows recognition and measurement of deferred tax assets based upon the likelihood of realization of tax benefits in future years. Under the asset and liability approach, deferred taxes are provided for the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. A valuation allowance is provided for deferred tax assets if it is more likely than not these items will either expire before the Company is able to realize their benefits, or future deductibility is uncertain.

ASC 740-10-25 prescribes a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken (or expected to be taken) in a tax return. It also provides guidance on the recognition of income tax assets and liabilities, classification of current and deferred income tax assets and liabilities, accounting for interest and penalties associated with tax positions, years open for tax examination, accounting for income taxes in interim periods and income tax disclosures. There were no material uncertain tax positions as of December 31, 2020 and 2019. All tax returns since the Company's inception are subject to examination by tax authorities.

Value Added Tax ("VAT")

The Company is subject to VAT for selling merchandise. The applicable VAT rate is 11% or 13% or 17% (depending on the type of goods involved) for products sold in the PRC. The applicable VAT rate of 17% and 11% decreased to 16% and 10% starting from May 2018, and further decreased to 13% and 9% from April 1, 2019. The amount of VAT liability is determined by applying the applicable tax rate to the invoiced amount of goods sold (output VAT) less VAT paid on purchases made with the relevant supporting invoices (input VAT). Under the commercial practice of the PRC, the Company pays VAT based on tax invoices issued. The tax invoices may be issued subsequent to the date on which revenue is recognized, and there may be a considerable delay between the date on which the revenue is recognized and the date on which the tax invoice is issued. In the event the PRC tax authorities dispute the date on which revenue is recognized for tax purposes, the PRC tax office has the right to assess a penalty based on the amount of taxes which is determined to be late or deficient, with any penalty being expensed in the period when a determination is made by the tax authorities that a penalty is due. During the reporting periods, the Company had no dispute with PRC tax authorities and there was no tax penalty incurred.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Earnings (loss) per Share (“EPS”)

The Company computes earnings (loss) per share (“EPS”) in accordance with ASC 260, “Earnings per Share” (“ASC 260”), and SEC Staff Accounting Bulletin No. 98 (“SAB 98”). ASC 260 requires companies with complex capital structures to present basic and diluted EPS. Basic EPS is measured as net income divided by the weighted average common shares outstanding for the period. Diluted EPS is similar to basic EPS but presents the dilutive effect on a per share basis of potential common shares (e.g., convertible securities, options and warrants) as if they had been converted at the beginning of the periods presented, or issuance date, if later. Potential common shares that have an anti-dilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS. As of December 31, 2020 and 2019, the total number of registered and unregistered warrants outstanding was 6,557,635 and 1,078,045, respectively. For the years ended December 31, 2020, 2019 and 2018, no warrants were included in the diluted income (loss) per share as they would be anti-dilutive.

Statement of Cash Flows

In accordance with ASC 230, “Statement of Cash Flows,” cash flows from the Company’s operations are calculated based upon the local currencies. As a result, amounts related to assets and liabilities reported on the statements of cash flows will not necessarily agree with changes in the corresponding balances on the balance sheets.

Risks and Uncertainties

The operations of the Company are located in the PRC. Accordingly, the Company’s business, financial condition, and results of operations may be influenced by the political, economic, and legal environments in the PRC, in addition to the general state of the PRC economy. The Company’s results may be adversely affected by changes in the political and social conditions in the PRC, and by changes in governmental policies with respect to laws and regulations, anti-inflationary measures, currency conversion and remittance abroad, and rates and methods of taxation, among other things.

The Company’s sales, purchases and expense transactions are denominated in RMB, and all of the Company’s assets and liabilities are also denominated in RMB. The RMB is not freely convertible into foreign currencies under the current law. In China, foreign exchange transactions are required by law to be transacted only by authorized financial institutions at exchange rates set by the People’s Bank of China, the central bank of China. Remittances in currencies other than RMB may require certain supporting documentation in order to affect the remittance.

The Company does not carry any business interruption insurance, products liability insurance or any other insurance policy except for a limited property insurance policy. As a result, the Company may incur uninsured losses, increasing the possibility that investors would lose their entire investment in the Company.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

*COVID-19*

The Company's operations are affected by the recent and ongoing outbreak of the coronavirus disease 2019 (COVID-19) which in March 2020, was declared a pandemic by the World Health Organization. The COVID-19 outbreak is causing lockdowns, travel restrictions, and closures of businesses. The Company's business has been negatively impacted by the COVID-19 coronavirus outbreak to certain extent.

From late January 2020 to the middle of February 2020, the Company had to temporarily suspend our manufacturing activities due to government restrictions. During the temporary business closure period, our employees had very limited access to our manufacturing facilities and the shipping companies were not available and as a result, the Company experienced difficulty delivering our products to the customers on a timely basis. In addition, due to the COVID-19 outbreak, some of the customers or suppliers may experience financial distress, delay or default on their payments, reduce the scale of their business, or suffer disruptions in their business due to the outbreak. Any increased difficulty in collecting accounts receivable, delayed raw materials supply, bankruptcy of small and medium businesses, or early termination of agreements due to deterioration in economic conditions could negatively impact our results of operations.

During the year ended December 31, 2020, the Company's revenues for consumer product segment decreased approximately 36% as compared to the same period of last year, however, the sales for trading segment increased significantly for approximately 269% due to the significant increased demand for bamboo charcoal used for air purification and sanitation products.

As of the date of this filing, the COVID-19 coronavirus outbreak in China appears to have slowed down and most provinces and cities have resumed business activities under the guidance and support of the government. However, there is still significant uncertainty regarding the possibility of a second wave of infections, and the breadth and duration of business disruptions related to COVID-19, which could continue to have material impact to the Company's operations.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 2 – Summary of significant accounting policies (continued)**

Recent accounting pronouncements

The Company considers the applicability and impact of all accounting standards updates (“ASUs”). Management periodically reviews new accounting standards that are issued.

In August 2018, the FASB Accounting Standards Board issued ASU No. 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework Changes to the Disclosure Requirements for Fair Value Measurement” (“ASU 2018-13”). ASU 2018-13 modifies the disclosure requirements on fair value measurements. ASU 2018-13 is effective for public entities for fiscal years beginning after December 15, 2019, with early adoption permitted for any removed or modified disclosures. The removed and modified disclosures will be adopted on a retrospective basis and the new disclosures will be adopted on a prospective basis. The Company adopted this guidance in fiscal 2020 and this guidance did not have a material impact on the consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, “Income Taxes” (Topic 740): Simplifying the Accounting for Income Taxes (“ASU 2019-12”). ASU 2019-12 will simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. For public business entities, the amendments in this Update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. The Company does not expect that the requirements of ASU 2019-12 will have a material impact on its consolidated financial statements.

In January 2020, the FASB issued ASU 2020-01, Investments - Equity Securities (Topic 321), Investments - Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815) (“ASU 2020-01”), which is intended to clarify the interaction of the accounting for equity securities under Topic 321 and investments accounted for under the equity method of accounting in Topic 323 and the accounting for certain forward contracts and purchased options accounted for under Topic 815. ASU 2020-01 is effective for the Company beginning January 1, 2021. The Company is currently evaluating the effect of adopting this ASU on the Company’s financial statements.

Except for the above-mentioned pronouncements, there are no new recent issued accounting standards that will have material impact on the consolidated financial statements.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 3 – Variable Interest Entity**

The VIE contractual arrangements

Wangbo, Shangchi Automobile and its subsidiary, Shenzhen Yimao, are controlled through contractual arrangements in lieu of direct equity ownership by the Company. These agreements include an Exclusive Management Consulting and Technology Agreement, two Equity Pledge Agreements, two Exclusive Call Option Agreements, two Proxy Agreements and two Powers of Attorney (collectively “VIE Agreements”). Pursuant to the above VIE Agreements, Jiamu has the exclusive right to provide Wangbo consulting services related to business operations including technical and management consulting services. All the above contractual agreements obligate Jiamu to absorb a majority of the risk of loss from Wangbo’s activities and entitle Jiamu to receive a majority of their residual returns. In essence, Jiamu has gained effective control over Wangbo. Wangbo owns 51% and Jiyi owns 19% of Shangchi Automobile respectively. A third party owns 30% of Shangchi automobile.

In accordance with accounting standards regarding consolidation of variable interest entities, VIEs are generally entities that lack sufficient equity to finance their activities without additional financial support from other parties or whose equity holders lack adequate decision making ability. The VIEs with which the Company is involved must be evaluated to determine the primary beneficiary of the risks and rewards of the VIE. The primary beneficiary is required to consolidate the VIE for financial reporting purposes. Therefore, the Company believes that Wangbo should be considered as a Variable Interest Entity (“VIE”) under the Statement of Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 810 “Consolidation”.

Jiamu is deemed to have a controlling financial interest in and be the primary beneficiary of Wangbo because it has both of the following characteristics:

- The power to direct activities at Wangbo that most significantly impact such entity’s economic performance, and
- The obligation to absorb losses of, and the right to receive benefits from Wangbo that could potentially be significant to such entity.

Pursuant to the contractual arrangements with Wangbo, Wangbo pay service fees equal to 95% of their net profit after tax payments to Jiamu. At the same time, Jiamu is obligated to absorb a majority of Wangbo’s losses. Such contractual arrangements are designed so that the operation of Wangbo is for the benefit of Jiamu and ultimately, the Company.



**Note 3 – Variable Interest Entity (continued)**

Risks associated with the VIE structure

The Company believes that the contractual arrangements with its VIE and the VIE's shareholders are in compliance with PRC laws and regulations and are legally enforceable. However, uncertainties in the PRC legal system could limit the Company's ability to enforce the contractual arrangements. If the legal structure and contractual arrangements were found to be in violation of PRC laws and regulations, the PRC government could:

- revoke the business and operating licenses of the Company's PRC subsidiary and VIE;
- discontinue or restrict the operations of any related-party transactions between the Company's PRC subsidiary and VIE;
- limit the Company's business expansion in China by way of entering into contractual arrangements;
- impose fines or other requirements with which the Company's PRC subsidiary and VIE may not be able to comply;
- require the Company or the Company's PRC subsidiary and VIE to restructure the relevant ownership structure or operations; or
- restrict or prohibit the Company's use of the proceeds from public offering to finance the Company's business and operations in China.

The Company's ability to conduct its business through its VIE may be negatively affected if the PRC government were to carry out any of the aforementioned actions. As a result, the Company may not be able to consolidate its VIE and its VIE's subsidiary in its consolidated financial statements as it may lose the ability to exert effective control over the VIE and its shareholders and it may lose the ability to receive economic benefits from the VIE. The Company, however, does not believe such actions would result in the liquidation or dissolution of the Company, its PRC subsidiary and its VIE.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 3 – Variable Interest Entity (continued)**

The following assets and liabilities of the consolidated VIE were included in the accompanying consolidated balance sheets of the Company as of December 31, 2020 and 2019 after elimination of intercompany balances:

	<b>December 31,</b> <b>2020</b>	<b>December 31,</b> <b>2019</b>
<b>Current assets</b>		
Cash and cash equivalents	\$ 206,893	\$ 70,420
Restricted cash	220,109	205,520
Accounts receivable, net	-	795,240
Prepaid taxes	1,045,027	894,051
Inventories, net	301,607	239,222
Advances to suppliers, net	333,010	93,241
Prepaid expenses and other receivables, net	37,104	73,378
<b>Total Current Assets</b>	<b>2,143,750</b>	<b>2,371,072</b>
<b>Non-current assets</b>		
Property, plant and equipment, net	1,157,803	1,139,398
Manufacturing rebate receivable	5,755,237	7,746,116
Intangible assets, net	462,279	12,764,272
<b>Total Assets</b>	<b>\$ 9,519,069</b>	<b>\$ 24,020,858</b>
<b>Current liabilities</b>		
Bank acceptance notes payable	\$ 220,109	\$ 205,520
Accounts payable	1,207,623	1,165,718
Customer deposits	381,623	113,657
Taxes payable	369	-
Due to related parties	892,590	943,584
Accrued liabilities and other payables	350,928	442,280
<b>Total Current Liabilities</b>	<b>3,053,242</b>	<b>2,870,759</b>
<b>Non-current liabilities</b>		
Deferred tax liability	-	1,784,875
<b>Total Liabilities</b>	<b>\$ 3,053,242</b>	<b>\$ 4,655,634</b>

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 4 — Liquidity**

For the years ended December 31, 2020 and 2019, the Company had a significant decrease in net income. In addition, the Company closed Tantech Babiku and Lishui Zhongzhu, and sold Tantech Energy's remaining operation due to business strategic changes during the years ended December 31, 2019 and 2018. All of these events had significant impact on the Company's operations.

For its consumer product segment, the Company significantly cut its sales to supermarket customers because of long-aged accounts receivable from these supermarket customers. In addition, as a result of negative impact of COVID-19, the Company reduced its consumer product manufacturing activities in fiscal 2020. Meanwhile, the Electric Vehicle (the "EV") segment is also experiencing delays of government rebate processing time and reduction of the amount of government rebates on eligible vehicles.

Due to a successful equity financing which resulted in net proceeds of \$9.1 million in November 2020, as well as the equity financing in September 2017 which resulted in net proceeds of \$5.6 million, the Company had approximately \$37.1 million cash on hand as of December 31, 2020. Although the Company maintains a positive working capital as of December 31, 2020 and generated positive cash flows from its operations for the years ended December 31, 2020 and 2019, the future operations of the Company depend on whether or not the Company can successfully collect its accounts receivable and utilize its advances, as well as how the change of government policies affect its EV business. As of December 31, 2020 and 2019, the Company had a short-term loan balance of approximately \$5.6 million and \$6.9 million, respectively. In addition, the Company had bank acceptance notes payable balance of approximately \$1.8 million and \$0.2 million as of December 31, 2020 and 2019, respectively. Any failure to renew these bank borrowings upon their maturities could have an adverse impact on the Company's operations.

The Company currently plans to fund its operations mainly through cash flow from its operations, renewal of bank borrowings, additional equity financing and the continuing financial support by its shareholders and its affiliates controlled by its principal shareholder, if necessary, in the near future to ensure sufficient working capital. The Company has implemented a stricter policy on sales to supermarkets and less credible customers and continues to improve its collection efforts on accounts with outstanding balances. The Company is actively working with other customers and suppliers and expects to fully collect or utilize the rest of prepayment balance in 2021.

The Company is also working closely with the local government to speed up the collection process of the outstanding government rebate balance in 2021. Although the Company is currently not generating net income from its EV segment, it has been focusing on reducing the costs and expenses and developing other non-rebate vehicles. During the year ended December 31, 2020, the Company established two subsidiaries to focus on developing and manufacturing of electric vehicles. The Company plans to fund this segment through additional private placement and continued support from the parent company even without timely receipt of government rebate. The principal shareholder of the Company, along with the affiliated entity, Forasen Group, has agreed to provide financial support to the Company whenever necessary.

Based on its current operating plan, management believes that the above-mentioned measures collectively will provide sufficient liquidity for the Company to meet its future liquidity and capital requirements for at least next twelve months from the date of this report.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 5 – Discontinued operations**

On June 26, 2019, the Company entered a share transfer agreement to sell all of its shares in Tantech Energy to an unrelated third party with a consideration of RMB 6,500,000 (approximately US\$941,000). The Company completed the disposition process in July 2019. The Company recorded a loss of \$569,891 on disposal of Tantech Energy which was included in the loss from disposal of discontinued operations on statements of comprehensive income (loss).

During the year ended December 31, 2018, the Company closed the business operation of Lishui Zhongzhu and Tantech Babiku, due to business strategy change.

The aggregated financial results of the discontinued business are set forth below:

	<b>Year ended December 31, 2020</b>	<b>For the period from January 1 to July 31, 2019</b>	<b>Year ended December 31, 2018</b>
Revenue	\$ -	\$ 3,803,430	\$ 9,107,922
Cost of revenues	-	4,048,640	9,116,707
Gross loss	-	(245,210)	(8,785)
Operating expenses	-	629,525	3,164,918
(Reversal of) Bad debt provision	-	(1,144,417)	(1,477,631)
Income (loss) from operations	-	269,682	(1,696,072)
Other income, net	-	797	1,779,439
Income before income taxes	-	270,479	83,367
Income taxes	-	-	-
Income from discontinued operations, net of tax	<u>\$ -</u>	<u>\$ 270,479</u>	<u>\$ 83,367</u>

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 6 – Accounts receivable**

Accounts receivable consisted of the following:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Accounts receivable	\$ 38,110,487	\$ 45,083,689
Allowance for doubtful accounts	(3,699,890)	(5,731,281)
Accounts receivable, net	<u>\$ 34,410,597</u>	<u>\$ 39,352,408</u>

The movement of allowance for doubtful accounts are as follows:

	<b>Year ended December 31, 2020</b>	<b>Year ended December 31, 2019</b>
Balance at beginning of year	\$ 5,731,281	\$ 4,682,592
Change of allowance for doubtful accounts	(895,043)	1,286,997
Write off	(1,523,489)	-
Translation adjustments	387,141	(238,308)
Balance at end of year	<u>\$ 3,699,890</u>	<u>\$ 5,731,281</u>

**Note 7 – Inventory**

Inventory consisted of the following:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Raw materials	\$ 489,750	\$ 515,658
Finished products	53,223	79,269
Work in process	128,278	700
Total Inventory	<u>\$ 671,251</u>	<u>\$ 595,627</u>

For the years ended December 31, 2020, 2019 and 2018, the Company recorded inventory markdown in the amounts of \$92,064, \$1,030,236 and \$700,379, respectively.

TANTECH HOLDINGS LTD AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 8 – Advances to suppliers**

	December 31, 2020	December 31, 2019
Advances to suppliers	\$ 7,033,556	\$ 14,596,906
Allowance for doubtful accounts	(179,095)	(1,517,017)
Advances to suppliers, net	6,854,461	13,079,889
Less: Advances to suppliers, non-current	-	-
Advances to suppliers, current	<u>\$ 6,854,461</u>	<u>\$ 13,079,889</u>

The movement of allowance for doubtful accounts are as follows:

	Year ended December 31, 2020	Year ended December 31, 2019
Balance at beginning of year	\$ 1,517,017	\$ 1,426,769
Change of allowance for doubtful accounts	(400,436)	162,859
Write off	(1,039,958)	-
Translation adjustments	102,472	(72,611)
Balance at end of year	<u>\$ 179,095</u>	<u>\$ 1,517,017</u>

Advances to suppliers – non-current

	December 31, 2020	December 31, 2019
Zhibo Jieli Special Battery Material Co., Ltd *	\$ -	\$ 430,800
Allowance for doubtful accounts	-	(430,800)
Advances to suppliers – non-current, net	<u>\$ -</u>	<u>\$ -</u>

\* representing the prepayments made to acquire machinery.

During the year ended December 31, 2020, the Company wrote off the prepayments made to Zhibo Jieli Special Battery Material Co., Ltd for acquiring the machinery.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 9 – Manufacturing rebate receivable**

On September 13, 2013, the Chinese Ministry of Finance, the Chinese Ministry of Science and Technology, the Chinese Ministry of Industry and Information Technology, and the Chinese National Development and Reform Commission issued a joint announcement that in order to promote the development, sale and use of alternative energy vehicles, Chinese government will continue to provide a manufacturing rebate for qualifying alternative energy vehicles sold. The government rebate is paid to the Company on behalf of our customer for a portion of selling price, for which, our customer does not need to pay at the time of purchase. The government manufacturing rebates are typically provided to eligible alternative energy automobile manufacturers after sales are finalized and paperwork regarding the eligible mileages is submitted. Based on the criteria listed, Shangchi Automobile (formerly known as Suzhou E-Motors) was eligible for approximately \$6,000 and \$29,400 in government manufacturing rebates for each of the qualifying electric vehicles sold during the years ended December 31, 2018 and 2017, respectively, because the management believes that the electric vehicles sold met all the criteria set by the government and the collection of these manufacturing rebates is reasonably assured.

Shangchi Automobile did not make sales of electric vehicles during the years ended December 31, 2020 and 2019, respectively, and recognized \$Nil manufacturing rebate income as part of revenue for the years ended December 31, 2020 and 2019, respectively.

As of December 31, 2020, the manufacturing rebate receivable was \$5,755,237 (RMB 37,542,315), including \$2,023,560 (RMB 13,200,000) of manufacturing rebate receivable related to qualified electric vehicles sold in fiscal 2016, \$3,051,676 (RMB 19,906,560) of manufacturing rebate receivable related to qualified electric vehicles sold in fiscal 2017 and \$680,001 (RMB 4,435,755) of manufacturing rebate receivable related to qualified electric vehicles sold in fiscal 2018. The Company has not received the full payment of those eligible government rebates due to the recent slower processing of rebates. The Company is currently working closely with the local government to speed up the collection process of the outstanding government rebate balance.

**Note 10 – Property, plant and equipment, net**

Property, plant and equipment stated at cost less accumulated depreciation consisted of the following:

	<b>December 31,</b> <b>2020</b>	<b>December 31,</b> <b>2019</b>
Building	\$ 5,631,049	\$ 5,199,348
Machinery and Production equipment	1,311,624	1,901,886
Electronic equipment	193,912	240,606
Office equipment	38,524	55,961
Automobiles	545,008	501,156
Construction in progress	133,339	117,014
Subtotal	<u>7,853,456</u>	<u>8,015,971</u>
Less: Accumulated depreciation	(5,375,544)	(5,315,937)
Property, plant and equipment, net	<u>\$ 2,477,912</u>	<u>\$ 2,700,034</u>

Depreciation expense was \$436,427, \$703,113 and \$1,049,274 for the years ended December 31, 2020, 2019 and 2018, respectively, among which \$436,427, \$462,639 and \$628,144 were for continuing operations, respectively.

As of December 31, 2020 and 2019, building with net book value of \$895,742 (all from continuing operations) and \$966,201 (all from continuing operations), respectively, were pledged as collateral for bank loans (Note 12).

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 11 – Intangible assets, net**

	December 31, 2020	December 31, 2019
Software	\$ 25,957	\$ 24,314
Electric vehicle manufacturing license**	-	11,899,171
Land use rights*	307,241	287,800
Patents**	4,599,000	4,308,000
Subtotal	4,932,198	16,519,285
Less: Accumulated amortization	(4,268,165)	(3,560,268)
Intangible assets, net	<u>\$ 664,033</u>	<u>\$ 12,959,017</u>

\*There is no private ownership of land in China. Land is usually owned by the local government and the government grants land use rights for specified terms. The Company acquired two land use rights from the local government in December 2002 and September 2008 for periods of 50 years. As of December 31, 2020 and 2019, land use rights with net book value of \$201,755 (all from continuing operations) and \$194,745 (all from continuing operations), respectively, were pledged as collateral for bank loans (Note 12).

\*\* Electric vehicle manufacturing license and patents on specialty electric vehicles resulted from the acquisition of Shangchi Automobile (formerly known as Suzhou E-Motors). During the year 2020, due to the impact of COVID-19, Shangchi Automobile was unable to maintain normal operations and all sales and marketing events were disrupted due to travel restrictions and other government regulations. While the spread of COVID-19 has gradually been under control in China, it could adversely affect the Company's business for the future. Shangchi Automobile has no immediate business plan to start manufacturing the electric vehicles. Management determined that the electric vehicle production license should be impaired. The Company recorded an impairment of \$11,998,606 for the year ended December 31, 2020. For the year ended December 31, 2019, the Company recorded an impairment of \$1,103,332 because the carrying amount was not recoverable and it exceeded its fair value based on the management's assessment. For the years ended December 31, 2018, the Company did not record any impairment for the electric vehicle manufacturing license.

Amortization expense for intangible assets totaled \$441,489, \$459,898 and \$602,959 for the years ended December 31, 2020, 2019 and 2018, respectively, among which \$441,489, \$441,489 and \$443,318 were for continuing operations, respectively.

**Note 12 – Short-term bank loans**

The Company's short-term bank loans consist of the following:

	December 31, 2020	December 31, 2019
Loan payable to Bank of China Lishui Branch	\$ 2,958,690	\$ 4,132,808
Loan payable to Shanghai Pudong Development ("SPD") Bank Lishui Branch	2,606,100	2,728,400
Total	<u>\$ 5,564,790</u>	<u>\$ 6,861,208</u>

On July 9, 2020, Tantech Charcoal entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow \$2,958,690 (RMB 19,300,000) for one year with annual interest rate of 4.85%. The purpose of the loan was for purchasing bamboo charcoal materials. The loan was collateralized by building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$4.0 million (RMB25,960,000). The loan was also guaranteed by two related parties, Lishui Jiuanju Commercial Trade Co., Ltd. ("LJC"), and Forasen Group Co., Ltd., one third party, Zhejiang Meifeng Tea Industry Co., Ltd., and three individual related parties, Zhengyu Wang, Chairman of the Board and previous CEO of the Company, his wife, Yefang Zhang, and Aihong Wang, his relative.

On April 27, 2020, Tantech Bamboo entered into a short-term loan agreement with SPD Bank (Lishui Branch) to borrow \$2,912,700 (RMB 19 million) for one year with fixed annual interest rate of 4.785%. The purpose of the loan was to fund working capital needs. The loan was guaranteed by three related parties, Zhengyu Wang and his wife, Yefang Zhang and Forasen Group Co., Ltd., a company owned by Zhengyu Wang and Yefang Zhang. The loan was also collateralized by building and land use right of Tantech Energy with maximum guaranteed amount up to approximately \$4.5 million (RMB29,250,000). The Company repaid \$306,600 (RMB2.0 million) as required in fiscal year 2020. The Company further repaid \$153,300 (RMB 1.0 million) in February 2021 and \$2,452,800 (RMB16 million) in April 2021.



**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 12 – Short-term bank loans (continued)**

On January 6, 2020, Tantech Bamboo entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow \$2,725,674 (RMB 17.78 million) for six months with annual interest rate of 5.88%. The purpose of the loan was to fund working capital needs. The loan was collateralized by building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$4.0 million (RMB25,960,000). The loan was also guaranteed by three related parties, Zhengyu Wang, Chairman of the Board and previous CEO of the Company and his wife, Yefang Zhang and LJC, a related party, the president of which was also the present CEO and previous COO of the Company. The Company repaid the loan upon maturity.

On January 6, 2020, Tantech Charcoal entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow \$1,533,000 (RMB 10 million) for six months with annual interest rate of 4%. The purpose of the loan was for working capital needs. The loan was guaranteed by Tantech Bamboo, two individual related parties, Zhengyu Wang and Yefang Zhang and a third party, Zhejiang Meifeng Tea Industry Co., Ltd. The loan was also collateralized by two properties owned by Zhengyu Wang and Yefang Zhang and building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$1.5 million (RMB 10 million). The Company repaid the loan upon maturity.

As of December 31, 2020, total bank loans payable amounted to \$ 5,564,790.

On February 26, 2019, Tantech Charcoal entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow \$1,436,000 (RMB 10 million) for one year with annual interest rate of 4.35%. The purpose of the loan was for working capital needs. The loan was guaranteed by Tantech Bamboo, two individual related parties, Zhengyu Wang, Chairman of the Board and previous CEO of the Company and his wife, Yefang Zhang and a third party, Zhejiang Meifeng Tea Industry Co., Ltd. The loan was also collateralized by two properties owned by Zhengyu Wang and Yefang Zhang. The loan was fully repaid upon maturity in January 2020.

On March 18, 2019, Tantech Bamboo entered into a short-term loan agreement with Bank of China (Lishui Branch) to borrow \$2,696,808 (RMB 18.78 million) for one year with annual interest rate of 6.05%. The purpose of the loan was to fund working capital needs. The loan was collateralized by building and land use right of Tantech Bamboo with maximum guaranteed amount up to approximately \$3.7 million (RMB25,960,000). The loan was also guaranteed by three related parties, Zhengyu Wang, Chairman of the Board and previous CEO of the Company and his wife, Yefang Zhang and LJC, a related party, the president of which was also the present CEO and previous COO of the Company. The loan was fully repaid upon maturity in January 2020.

On November 4, 2019, Tantech Bamboo entered into a short-term loan agreement with SPD Bank (Lishui Branch) to borrow \$2,728,400 (RMB 19 million) with fixed annual interest rate of 5.22% and mature date of April 30, 2020. The purpose of the loan was to fund working capital needs. The loan was guaranteed by three related parties, Zhengyu Wang, Chairman of the Board and previous CEO and his wife, Yefang Zhang and Forasen Group Co., Ltd., a company owned by Zhengyu Wang and Yefang Zhang. The loan was also collateralized by building and land use right of Tantech Energy with maximum guaranteed amount up to approximately \$4.2 million (RMB29,250,000). The loan was fully repaid upon maturity in April 2020.

As of December 31, 2019, total bank loans payable amounted to \$6,861,208.

For the years ended December 31, 2020, 2019 and 2018, the interest expense related to bank loans was \$300,125, \$421,646 and \$378,857, respectively.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 13 – Bank acceptance notes payable**

Bank acceptance notes payable do not carry a stated interest rate but have a specific due date usually for a period of up to one year. These notes are negotiable documents issued by or guaranteed by financial institutions on the Company’s behalf to vendors. These notes can either be endorsed by the vendor to other third parties as payment or can be factored to other financial institutions before becoming due. These notes are short-term in nature. As collateral security for financial institutions’ undertakings, the Company is required to maintain deposits with such financial institutions in restricted cash amounts of 0% to 100% of the balances of the bank acceptance notes. As of December 31, 2020 and 2019, deposits of \$220,109 and \$205,520 were reported as restricted cash on balance sheet.

Bank acceptance notes payable consisted of the following:

		<b>December 31,</b>	<b>December 31,</b>
		<b>2020</b>	<b>2019</b>
Bank acceptance notes payable issued by SPD Bank Zhang Jiagang Branch	(a)	\$ -	\$ 205,520
Bank acceptance notes payable issued by Zhang Jiagang Rural Commercial Bank	(b)	220,109	-
Commercial acceptance notes payable guaranteed by SPD Bank Lishui Branch	(c)	1,533,000	-
Total		<u>\$ 1,753,109</u>	<u>\$ 205,520</u>

- (a) Bank acceptance notes payable of \$205,520 (RMB1,431,200) issued by SPD Bank Zhang Jiagang Branch with due date on January 12, 2020. The Company is required to maintain restricted cash deposits at 100% of the notes payable with the bank, in order to ensure future credit availability. These notes were fully paid upon maturity and restricted deposit was also released upon the payments.
- (b) Bank acceptance notes payable of \$220,109 (RMB1,435,805) issued by Zhang Jiagang Rural Commercial Bank with due dates from February 10, 2021 to March 29, 2021. The Company is required to maintain restricted cash deposits at 100% of the notes payable with the bank, in order to ensure future credit availability. These notes were fully paid upon maturity and restricted deposit was also released upon the payments.
- (c) Commercial acceptance notes payable of \$1,533,000 (RMB10,000,000) issued by Tantech Bamboo and guaranteed by SPD Bank Lishui Branch with due date on April 19, 2021. The Company is required to maintain restricted cash deposits at 100% of the notes payable with the bank, in order for the bank to make guarantee for the notes and ensure the availability for future credit. A related party, Zhejiang Xinsen Industrial Co., Ltd. (“Zhejiang Xinsen”), made collateral for this commercial acceptance notes payable on behalf of Tantech Bamboo with a one-year term deposit of approximately \$1,533,000 (RMB10,000,000), which has a due date of April 21, 2021. The note was fully paid upon maturity by Zhejiang Xinsen on behalf of Tantech Bamboo.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 14 – Related Party Balances and Transactions**

The balances due to related parties were as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Dr. Henglong Chen and his affiliates *	\$ 881,442	\$ 932,616
Forasen Group and its affiliates, controlled by Mr. Zhengyu Wang, Chairman and previous CEO of the Company until December 6, 2019	1,058,188	864,623
Mr. Wangfeng Yan, the CEO of the Company since December 7, 2019 and his affiliates	79,457	41,364
Total	<u>\$ 2,019,087</u>	<u>\$ 1,838,603</u>

\* Dr. Henglong Chen is the original shareholder of Shangchi Automobile (formerly known as Suzhou E-Motors). The Company acquired his 70% equity interest in Shangchi Automobile and issued 2,500,000 restricted shares of Tantech's common stock to him in connection with the acquisition of Shangchi Automobile. As of December 31, 2020 and 2019, the amount due to Dr. Henglong Chen and his affiliates were \$881,442 and \$932,616, respectively.

As of December 31, 2020 and 2019, the Company also borrowed \$1,058,188 and \$864,623 from Forasen Group and its affiliates, controlled by Mr. Zhengyu Wang, Chairman and previous CEO of the Company, for working capital purpose.

Mr. Wangfeng Yan, the CEO of the Company, and his affiliates, also made advances to the Company. The balance due to Mr. Wangfeng Yan and his affiliates was \$79,457 and \$41,364 as of December 31, 2020 and 2019, respectively.

All balances of due to the related parties were unsecured, interest-free and due upon demand.

The Company's major shareholder Mr. Zhengyu Wang, his wife Ms. Yefang Zhang and his relative Ms. Aihong Wang, as well as related party entities controlled by Mr. Wang, provided guarantees to the Company's bank loans (Note 12).

*Advance to vendor – related party*

During the year ended December 31, 2020, the Company paid \$3,089,690 (RMB 20,154,532) to LJC, a company controlled by our CEO, Mr. Wangfeng Yan, to purchase bamboo charcoal materials. As of December 31, 2020, the Company received materials of \$1,556,690 (RMB 10,154,532 with tax), the remaining advance of \$1,533,000 (RMB 10 million) was returned by the vendor in March 2021.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 15 – Commitments and Contingencies**

Guaranty provided for related party

In July 2017, Tantech Energy provided a guarantee with SPD Bank Lishui Branch on behalf of Forasen Group for maximum amount of approximately \$8.7 million (RMB 57,070,000) by pledging certain land and building as the collateral for the loan and notes. The guarantee expired on July 23, 2020.

In July 2020, Tantech Bamboo provided a guarantee with Bank of China Lishui Branch for Zhejiang Forasen Food Co., Ltd. (“Forasen Food”) for maximum amount of approximately \$1.5 million (RMB10 million) by pledging certain land and building as the collateral for the loan and notes. The guarantee will expire on July 8, 2023. Forasen Food is controlled by Ms. Yefang Zhang who is the Company’s director.

Operating lease

Shangchi Automobile leased certain factory facilities under operating leases through August 9, 2020. The annual rent under operating lease agreement was approximately \$144,800 (RMB 1 million). On August 10, 2020, Shangchi Automobile renewed the operating lease agreement with the landlord for one year until August 9, 2021 with annual rent of approximately \$144,800 (RMB 1 million). Shangchi Automobile was granted 2-month rent-free period due to COVID-19 impact in fiscal 2020.

Shenzhen Yimao leased office space under operating leases for one year from November 12, 2018 to November 11, 2019 with annual rent of approximately \$13,600 (RMB93,600). The lease agreement was renewed for another year until November 11, 2020.

On November 20, 2020, Shenzhen Yimao signed a new operating lease agreement for office space for one year from November 23, 2020 to November 22, 2021 with annual rent of approximately \$6,400 (RMB 44,352).

Tantech Bamboo leased factory facilities and office space from Tantech Energy after Tantech Energy was sold in July 2019 under operating leases until December 31, 2019 with rent free for the whole period in 2019. This agreement was renewed for another year from January 1, 2020 to December 31, 2020 with annual rent of approximately \$179,400 (RMB1,238,784). In December 2020, the Company renewed the above agreement for another year to December 31, 2021.

The rental expense for the years ended December 31, 2020, 2019 and 2018 were \$299,562, \$167,526 and \$139,507, respectively.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 15 – Commitments and Contingencies (continued)**

Contingency.

In May 2018, our wholly owned subsidiary Tantech Bamboo signed an agreement with other co-guarantors to jointly and severally guarantee the share repurchase obligation of Forasen Group, in favor of an unrelated third party. Such third party filed a complaint to claim a payment of approximately \$4.5 million (RMB 29.50 million) against Forasen Group, together with the guarantors on January 9, 2019. On August 30, 2019, the court issued a settlement by which another third party agreed to purchase the shares from the plaintiff by paying approximately \$13.8 million (RMB 90 million), and all the co-guarantors including Tantech Bamboo jointly and severally guarantee the payment obligation regarding the \$13.8 million (RMB 90 million) and other possible fees, for three years from June 30, 2020, the due date of the share purchase payment obligation. The other third party has paid approximately \$5.3 million (RMB 34.86 million) and approximately \$8.5 million (RMB 55.14 million) remains unpaid.

Accordingly, in June 2020, LJC, a company controlled by our CEO, Mr. Wangfeng Yan, issued to Tantech Bamboo an anti-guaranty guaranty to guarantee Tantech Bamboo's potential payment obligation, and a bank statement of approximately \$10.7 million (RMB 70 million). Therefore, the Company's PRC counsel believes Tantech Bamboo's legal risk has been relieved to some extent. The Company believes that it is more likely than not that LJC will perform its guaranty obligation and Tantech Bamboo will not need to make the payment.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 16 – Stockholders’ equity**

On September 19, 2018, the Company issued 150,000 common shares to three individuals for consulting services to be provided for the period from September 19, 2018 to May 18, 2019, which were valued at \$243,000 based on the quoted market price at issuance. The entire cost of \$243,000 was amortized over the 8-month service period using straight line method.

On March 23, 2020, the Company issued 35,592 common shares to an individual for consulting services provided for the period from September 2019 to February 2020, which were valued at \$33,812 based on the quoted market price at issuance.

On November 24, 2020, the Company completed an offering of 6,060,608 common shares at an offering price of \$1.65 per share. The gross proceeds were approximately \$10 million before deducting placement agent’s commission and other offering expenses, resulting in net proceeds of approximately \$9.1 million.

As of December 31, 2020 and 2019, the Company had an aggregate of 35,894,097 and 28,853,242 common shares outstanding, respectively.

September 2017 Offering Warrants

In connection with the offering closed in September 2017, the Company registered and issued warrants to purchase an aggregate of 1,078,045 common shares, consisting of 945,654 common shares exercisable underlying investor warrants and 132,391 common shares exercisable underlying placement agent warrants. All warrants carry a term of 5 years. The initial exercise price of the investor warrants and the placement agent warrants was \$4.25 per share and \$4.675 per share, respectively. The investor warrants can be exercisable immediately as of the date of issuance. The placement agent warrants are not exercisable for a period of 180 days after the effective date of the offering. A holder of the warrants also will have the right to exercise its warrants on a cashless basis if the registration statement or prospectus contained therein is not available for the issuance of the common shares issuable upon exercise thereof. The exercisability of the warrants may be limited if, upon exercise, the holder or any of its affiliates would beneficially own more than 4.99% of the Company’s common shares.

During the year ended December 31, 2020, 944,655 common share were issued upon excise of investor warrants at \$0.001 per share. The exercise price of such warrants was reduced from \$4.25 per share to \$0.001 per share by virtue of the Company’s entry into a securities purchase agreement on November 20, 2020,

November 2020 Offering Warrants

In connection with and upon closing of the offering on November 24, 2020, the Company issued registered warrants to purchase up to 2,754,820 common shares and unregistered warrants to purchase up to 3,305,788 common shares. Such registered and unregistered warrants are immediately exercisable, expire five years from the date of issuance and have an exercise price of \$1.81 per share. The placement agent also received unregistered warrants in connection with this offering exercisable for up to 363,637 common shares at \$1.815 per share, exercisable between May 24, 2021 to November 24, 2023.

Management determined that these warrants meet the requirements for equity classification under ASC 815-40 because they are indexed to its own stock. The warrants were recorded at their fair value on the date of issuance as a component of shareholders’ equity.

As of December 31, 2020, the total number of common shares underlying registered and unregistered warrants outstanding was 6,557,635. These warrants have weighted average of remaining life of 4.73 years and weighted average exercise price of \$1.87.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 17 – Noncontrolling Interests**

A reconciliation of non-controlling interest as of December 31, 2020 and 2019 is as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Beginning Balance	\$ 4,346,216	\$ 7,918,096
Proportionate shares of net loss	(3,501,808)	(3,601,728)
Foreign currency translation adjustment	(205,562)	29,848
<b>Total</b>	<b>\$ 638,846</b>	<b>\$ 4,346,216</b>

As of December 31, 2020 and 2019, the noncontrolling interests balances represented the noncontrolling shareholder’s 30% equity interests in Shangchi Automobile (formerly known as Suzhou E-Motors) and its subsidiary Shenzhen Yimao.

**Note 18 – Long term investments**

On January 10, 2018, the Company invested approximately \$18.4 million (or RMB 120 million) to acquire 18% equity interest in Libo Haokun Stone Co., Ltd. (“Libo Haokun”). Libo Haokun holds a government-issued permit and has the exclusive right to mine a 0.11-square-kilometer marble quarry in the central area of Guizhou province, China. Libo Haokun obtained the permit to mine the quarry from the local government in September 2016.

On November 29, 2019, the Company entered into an investment agreement (the “Investment Agreement”) with Jingning Zhonggang Mining Co., Ltd. (“Jingning Zhonggang”) through Lishui Tantech to acquire 18% of the equity interest of Fuquan Chengwang Mining Co., Ltd. (“Fuquan Chengwang”), a wholly-owned subsidiary of Jingning Zhonggang, at a price of \$7.1 million (RMB 46.32 million). The consideration equals 18% of RMB 257.35 million, the value of the mining right under a permit being renewed by Fuquan Chengwang according to an evaluation report. Fuquan Chengwang is a basalt mining company.

Pursuant to the Investment Agreement, Tantech is obligated to pay the consideration within 30 days after Fuquan Chengwang completes the recording process with the local industrial and commerce administration for transfer of the share ownership. Pursuant to the Investment Agreement, after the transfer of the 18% share ownership, if the value of Fuquan Chengwang is lower than RMB 257.35 million according to the financial statements audited by an accounting firm approved by the Tantech, Jingning Zhonggang will be obligated to refund to Tantech the overpaid amount. The payment could be in the form of cash, shares, or other assets with the same value, as selected by Tantech.

On December 17, 2019, Lishui Tantech entered into a supplementary agreement to the Investment Agreement (the “Supplementary Agreement,” and collectively with the Investment Agreement, the “Agreements”) with Jingning Zhonggang and Lishui Zhonggang Mining Co., Ltd. (“Lishui Zhonggang”). Jingning Zhonggang is a wholly-owned subsidiary of Lishui Zhonggang. Pursuant to the Supplementary Agreement, if Fuquan Chengwang is not able to receive the renewed mining permit by June 30, 2020, Lishui Tantech has the option to terminate the Investment Agreement and Jingning Zhonggang is obligated to return all of the consideration paid by the Company within 30 days after the termination date and the interest calculated by the relevant loan rate of the People’s Bank of China. Lishui Zhonggang, as the only shareholder of Jingning Zhonggang, will be jointly and severally liable for Jingning Zhonggang’s liabilities under the Agreements. Due to COVID-19 pandemic in early 2020, the mining permit renewal process has been delayed. Fuquan Chengwang received the renewed mining permit in March 2021, and expiration date is March 2024. The mining permit provides it the right to mine a 0.2607-square-kilometer basalt quarry in Fuquan City, Guizhou Province, China.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 18 – Long term investments (continued)**

After a series of transactions and reorganization, as of December 31, 2019, the Company and Jingning Zhonggang owns 18% and 82% of Libo Haokun, respectively, through Jingning Meizhongkuang Industry Co., Ltd. (“Jingning Meizhongkuang”). Jingning Meizhongkuang owns 100% of Fuquan Chengwang. The Agreements would enable Tantech to indirectly hold a 18% stake in Fuquan Chengwang through holding 18% of the equity interest of Jingning Meizhongkuang.

On April 3, 2020, Lishui Ansheng Energy Technology Co., a third party, signed an investment agreement with Jingning Meizhongkuang to invest in Fuquan Chengwang by paying \$7.13 million (RMB 46.5 million) to exchange 18% of the interest of Fuquan Chengwang. After the transaction, the Company’s indirect interest in Fuquan Chengwang was diluted from 18% to 14.76% through holding 18% of the equity interest of Jingning Meizhongkuang.

As the Company did not have significant influence over the equity investee, the investments were accounted for using the cost method. For the years ended December 31, 2020, 2019 and 2018, the Company did not recognize any impairment losses for the long-term investments.

**Note 19 – Taxes**

Prepaid taxes

Prepaid taxes as of December 31, 2020 and 2019 consist of the following:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Prepaid corporation income tax	\$ -	\$ 356,121
Prepaid value-added tax	1,046,667	2,040,228
Total	<u>\$ 1,046,667</u>	<u>\$ 2,396,349</u>

Taxes Payable

Taxes payable as of December 31, 2020 and 2019 consist of the following:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
Corporation income tax payable	\$ 415,488	\$ -
Other tax payable	155,866	102,704
Total	<u>\$ 571,354</u>	<u>\$ 102,704</u>



**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 19 – Taxes (continued)**

Corporation Income Tax (“CIT”)

Tantech BVI was incorporated in the BVI and is not subject to income taxes under the current laws of BVI.

USCNHK and Euroasia are holding companies registered in Hong Kong and has no operating profit for tax liabilities.

Tantech Bamboo was registered in the PRC and is subject to corporate income tax at a reduced rate of 15% starting from 2008 when it was approved by local government as a high-tech company. Tantech Bamboo did not renew the high-tech certificate for fiscal 2020 and subject to corporate tax rate of 25% for the year 2020. Shangchi Automobile was approved by local government as a high-tech company on December 7, 2017 and renewed on December 2, 2020. Shangchi Automobile was subject to income tax rate of 15%.

Tantech Bamboo, Lishui Tantech, Shenzhen Yimao, Jiamu, Jiyi, Wangbo, Tantech Charcoal, Zhejiang Shangchi, Lishui Smart and Tanbo Tech are all subject to income tax at unified rate of 25% for the year ended December 31, 2020.

The impact of the tax holidays noted above decreased foreign taxes by \$nil, \$381,033 and \$158,424 for the years ended December 31, 2020, 2019 and 2018, respectively. The benefit of the tax holidays on net income (loss) per share (basic and diluted) was \$nil, \$0.01 and \$0.01 for the years ended December 31, 2020, 2019 and 2018, respectively.

The following table reconciles PRC statutory rates to the Company’s effective tax rates for the years ended December 31, 2020, 2019 and 2018:

	<b>Years ended December 31,</b>		
	<b>2020</b>	<b>2019</b>	<b>2018</b>
Statutory PRC income tax rate	25%	25%	25%
Favorable tax rate impact	(14)%	(11)%	(8)%
Permanent difference and others	(5)%	4%	(1)%
Changes of deferred tax assets valuation allowances	0%	(22)%	35%
<b>Total</b>	<b>6%</b>	<b>(4)%</b>	<b>51%</b>

The income tax expense (credit) consisted of the following:

	<b>Years ended December 31,</b>		
	<b>2020</b>	<b>2019</b>	<b>2018</b>
Current	\$ 1,188,136	\$ 529,162	\$ 1,031,158
Deferred	(1,799,791)	(165,500)	-
<b>Total</b>	<b>\$ (611,655)</b>	<b>\$ 363,662</b>	<b>\$ 1,031,158</b>

TANTECH HOLDINGS LTD AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**Note 19 – Taxes (continued)**

Significant components of deferred tax assets and liabilities are as follows:

	<b>December 31, 2020</b>	<b>December 31, 2019</b>
<b>Deferred tax assets:</b>		
Allowance for doubtful accounts and other reserves and impairments	\$ 4,464,601	\$ 4,426,306
Valuation allowance	(4,464,601)	(4,426,306)
Total	<u>\$ -</u>	<u>\$ -</u>
<b>Deferred tax liability:</b>		
Increase in fair value of intangible assets acquired through acquisition	\$ 1,905,442	\$ 1,949,004
Impairment of intangible assets acquired through acquisition	(1,905,442)	(164,129)
Total	<u>\$ -</u>	<u>\$ 1,784,875</u>

At December 31, 2020 and 2019, the Company has provided full valuation allowance for deferred tax assets that the Company estimated the Company could not realize due to expected future operating loss in certain entities. As of December 31, 2020 and 2019, the valuation allowance was \$4,464,601 and \$4,426,306, respectively. The Company's management reviews this valuation allowance periodically and makes adjustments as necessary.

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 20 – Segment information**

The Company uses the “management approach” in determining reportable operating segments. The management approach considers the internal organization and reporting used by the Company’s chief operating decision maker for making operating decisions and assessing performance as the source for determining the Company’s reportable segments. Management, including the chief operating decision maker, reviews operation results of consumer products, trading and electric vehicles separately. The Company has determined that it has three operating segments as defined by ASC 280, “Segment Reporting”: consumer products, electric vehicles, and trading. Consumer products segment manufactures and sells Charcoal Doctor branded products and BBQ charcoal in China. Trading segment conducts trading businesses related to bamboo charcoal products. The EV segment was acquired in July 2017.

Adjustments and eliminations of inter-company transactions were not included in determining segment (loss) profit, as they are not used by the chief operating decision maker. The following table presents summary information by segment for the years ended December 31, 2020, 2019 and 2018, respectively.

	Consumer product			Trading			EV			Total		
	2020	2019	2018	2020	2019	2018	2020	2019	2018	2020	2019	2018
Revenue from external customers	\$ 29,418,654	\$ 45,821,163	\$ 22,388,827	\$ 12,481,023	\$ 3,379,705	\$ 3,776,842	\$ 383,993	\$ 29,702	\$ 3,395,730	\$ 42,283,670	\$ 49,230,570	\$ 29,561,399
Revenue from inter segment	(2,926,739)	(1,005,029)	(7,790,931)	-	-	-	-	-	-	(2,926,739)	(1,005,029)	(7,790,931)
Cost of revenue	25,598,821	40,138,663	14,347,896	11,813,003	2,270,766	3,290,089	395,473	843,641	3,894,334	37,807,297	43,253,070	21,532,319
Gross profit	3,819,833	5,682,500	8,040,931	668,020	1,108,939	486,753	(11,480)	(813,939)	(498,604)	4,476,373	5,977,500	8,029,080
Interest expenses	206,365	355,400	292,996	93,760	71,979	126,030	-	15,883	207,317	300,125	443,262	626,343
Depreciation & amortization	244,601	276,170	420,301	-	-	-	633,315	627,958	526,725	877,916	904,128	947,026
Capital expenditure	2,489	6,787,833	13,512,820	-	-	209,721	142,317	12,106	792,981	144,806	6,799,939	14,515,522
Segment assets	29,385,843	81,944,714	84,899,512	77,389,793	9,487,143	7,777,390	9,519,609	24,018,920	41,517,112	116,295,245	115,450,777	134,194,014
Segment profit	\$ 644,981	\$ 2,430,387	\$ 4,135,969	\$ 1,571,390	\$ (83,910)	\$ (134,511)	\$ (12,238,599)	\$ (12,005,760)	\$ (3,004,827)	\$ (10,022,228)	\$ (9,659,283)	\$ 996,631

All of the Company’s long-lived assets are located in the PRC. Geographic information about the revenues, which are classified based on customers, is set out as follows:

	Years ended December 31		
	2020	2019	2018
Revenue from China	\$ 42,283,670	\$ 49,230,570	\$ 29,561,399
Revenue directly from foreign countries	-	-	-
Total Revenue	\$ 42,283,670	\$ 49,230,570	\$ 29,561,399

**TANTECH HOLDINGS LTD AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 21 – Major customers and suppliers**

The Company had certain customers whose revenue individually represented 10% or more of the Company's total revenue, or whose accounts receivable balances individually represented 10% or more of the Company's total accounts receivable, as follows:

For the year ended December 31, 2020, five major customers accounted for approximately 28%, 20%, 14%, 12% and 10% of the Company's total sales, respectively. For the year ended December 31, 2019, six major customers accounted for approximately 19%, 19%, 18%, 17%, 13% and 12% of the Company's total sales, respectively. For the year ended December 31, 2018, two major customers accounted for approximately 37% and 12% of the Company's total sales, respectively.

As of December 31, 2020, four customers accounted for approximately 32%, 22%, 21% and 20% of the Company's accounts receivable balance. As of December 31, 2019, five customers accounted for approximately 30%, 18%, 18%, 16% and 16% of the Company's accounts receivable balance.

The Company also had certain major suppliers whose purchases individually represented 10% or more of the Company's total purchases. For the year ended December 31, 2020, two major suppliers accounted for approximately 53% and 17% of the Company's total purchases, respectively. For the year ended December 31, 2019, three major suppliers accounted for approximately 38%, 20% and 18% of the Company's total purchases, respectively. For the year ended December 31, 2018, three major suppliers accounted for approximately 33%, 24% and 15% of the Company's total purchases, respectively.

**Note 22 – Subsequent event**

On March 23, 2021, Mr. Hengwei Chen filed a lawsuit against Shangchi Automobile (formerly known as Suzhou E-Motor) and the Company for a debt dispute of total RMB 11.35 million (approximately \$1.7 million). Mr. Chen was the former general manager of Shangchi Automobile before the Company acquired Shangchi Automobile in 2017. The Company objected the claim and the case is still under investigation by the court as of the date of this filing. The Company estimates that no liability to be recorded by the Company.

On April 7, 2021, Tantech Bamboo entered into a short-term loan agreement with SPD Bank (Lishui Branch) to borrow approximately \$2.5 million (RMB 16 million) for one year with fixed annual interest rate of 5.65%. The purpose of the loan was to fund working capital needs. The loan was guaranteed by three related parties, Zhengyu Wang and his wife, Yefang Zhang and Forasen Group Co., Ltd., a company owned by Zhengyu Wang and Yefang Zhang. The loan was also collateralized by building and land use right of Tantech Energy with maximum guaranteed amount up to approximately \$4.5 million (RMB29,250,000).

Summary Translation

Lease Agreement between Zhejiang Tantech Bamboo Technology Co., Ltd. and Zhejiang Tantech Energy Technology Co., Ltd.

**Party A: Zhejiang Tantech Energy Technology Co., Ltd.**

**Party B: Zhejiang Tantech Bamboo Charcoal Co., Ltd.**

In December 8, 2021, the two parties signed a Lease Agreement. Party A rented the house to Party B. The house is located at Building 3 #, 4 #, No. 10 Censhan Road, Shuige Industrial Zone, Lishui City, Zhejiang Province, China, with an area of 12,904 square meters. The house is used as production and office space for Party B.

The rental period of the house is 1 year, from January 1, 2021 to December 31, 2021. The rent is paid every six months. The total annual rent of the house is 1,238,784 yuan.

The Agreement is made in duplicate with all parties herein holding one copy each with the same legal effect.

**Zhejiang Tantech Bamboo Charcoal Co., Ltd.**

/s/ Corporate Chop

By: /s/ Wangfeng Yan

Name: Wangfeng Yan

**Zhejiang Tantech Energy Technology Co., Ltd.**

/s/ Corporate Chop

By: /s/ Yonghong Wu

Name: Yonghong Wu

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**Lease Agreement**

Party A: Zhangjiagang Jinmao Investment Development Co. LTD

Party B: Shangchi Automobile Co., Ltd.

After negotiation, both parties reached the following agreement on land, housing and other lease matters:

1. Party B rents the 11688 m<sup>2</sup> workshop, 4515 m<sup>2</sup> land, train operation, transformer, cable, and other facilities of former Chassis Factory of Peony Group located in the Yongli village, Leyu Town, Zhangjiagang City.
  2. The lease period: one year, from August 10, 2020 to August 9, 2021.
  3. The rent is 1 million RMB one year, which is still the preferential rental price determined by the two parties. The rent is paid semiannually.
  4. Party B shall bear all expenses such as electricity, water and sanitation during the lease period.
  5. Party B should not damage the facilities in the Premises. If structural change is necessary in the process of decoration or the installation of the equipment does damage to the Premises, Party B should get the prior written approval from Party A. The cost of such change should be borne by Party B. The structural changes that Party B will carry out to the Premises are indicated in the project attached to this Contract. Party A hereby gives its consent to such changes.
  6. During the lease period, Party B shall be responsible for the safety inspection, use, maintenance and repair of all the leased assets. Party B should be responsible for the reinstatement works and compensation for the economic losses for the damage of the Premises and loss of its facilities due to the mismanagement of Party B.
  7. After the lease expires or the agreement is terminated due to other reasons such as termination of the agreement, Party B must move out within 15 days after the agreement is terminated, and pay all the costs that should be borne by Party B. Party A does not assume any responsibility for compensation, and Party A must be present at the same time as the day of moving out.
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8. When the lease expires, Party B should return the leased house land as scheduled. If Party B needs to continue to lease, it should give the written request to Party A two months before the lease expires. right.
  9. During the lease period, if the plant land leased by Party A to Party B is sold, auctioned, or subject to other sanctions, Party A shall notify Party B two months in advance. Party B shall cooperate, but Party A shall ensure that the asset transferee gives Party B Enjoy the right to lease within the lease period.
  10. If the contractual relationship between the two parties is terminated and Party B does not move out unconditionally within the agreed date, Party A will give Party B a 15-day grace period. The rent for the grace period is calculated at 6000 yuan per day. Party A pays the house usage fee to Party A at twice the original lease price, and it is deemed that Party B authorizes Party A to have the right to move or leave and dispose of all items of Party B, and Party B shall bear the losses incurred.
  11. Party B shall abide by the laws and disciplines in its business activities. In the event of violations of the law, Party B shall be responsible for all consequences.
  12. During the lease period, both parties should abide by the contract and may not cancel the contract at will. For example, due to government planning, urban construction needs, and local government industrial planning needs, the two parties should obey the government's needs, that is, terminate the lease relationship and handle them in accordance with relevant regulations.
  13. If Party B fails to pay the rent or other payables on time during the rental period, Party A has the right to recover from Party B the default penalty of 1% of the daily rent owed; Party A has the right to stop water if it is overdue for more than 10 days. Measures such as power outages can also unilaterally terminate this contract and claim damages in accordance with the aforementioned standards.
  14. Party B voluntarily sublet, lend or transfer the leased house land to others for use, or add the house to the body structure, or privately occupy unused house land, or seriously violate other provisions of this contract. Party A has The unilateral party terminates this contract and claims the costs and compensation that should be borne by Party B.
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15. If Party A realizes its claims through litigation due to the above-mentioned breach of contract by Party B, Party B shall bear the costs of Party A 's realization of its claims (including litigation fees, attorney fees, security fees, etc.)
16. Both parties must fully fulfill the obligations stipulated in the contract. If either party breaches the contract, it shall compensate the other party for economic losses in accordance with the law.
17. This contract is made in duplicate, with each party holding one copy, and the contract becomes effective after being signed by the representatives of both parties.

Party

A Party B

Date of signature:

Date of signature:

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Summary Translation

Lease Agreement between Shenzhen Xinrui Commercial Property Co., Ltd. and  
Shenzhen Yimao New Energy Sales Co., Ltd.

**Party A: Shenzhen Xinrui Commercial Property Co., Ltd.**

**Party B: Shenzhen Yimao New Energy Sales Co., Ltd.**

On November 11, 2020, the two parties signed a Lease Agreement. Party A rented the house to Party B.

The house is located at No. 1108, Tianle Building, No. 1021, Buji Road, Luohu District, Shenzhen China ,with an area of 54 square meters.

The house is used as office space for Party B.

The rental period of the house is 1 year, from November 23, 2020 to November 22, 2021. The rent is paid every month. The total annual rent of the house is 1,45,360 yuan.

The Agreement is made in duplicate with all parties herein holding one copy each with the same legal effect.

**Shenzhen Yimao New Energy Sales Co., Ltd.**

/s/ Corporate Chop

By: /s/ Mingqin Dong

Name: Mingqin Dong

**Shenzhen Xinrui Commercial Property Co., Ltd.**

/s/ Corporate Chop

By: /s/ Yong Li

Name: Yong Li

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### Non-Competition Agreement

This Non-Competition Agreement is made and entered into as of March 29, 2021, between Zhengyu Wang (“**Party A**”) and Yefang Zhang (“**Party B**”, and together with Party A, each a “**Party**” and collectively the “**Parties**”), Tantech Holdings Ltd. (“**Tantech**”), Farmmi, Inc. (“**Farmmi**”) and CN Energy Group, Inc. (“**CN Energy**”). Tantech, Farmmi and CN Energy act as the third-party beneficiaries to have the right power to enforce this Agreement.

WHEREAS, Party A and Party B share beneficial ownership of, and voting and investment power over, the shares of Tantech, Farmmi and CN Energy;

WHEREAS, Tantech manufactures and sells bamboo-based charcoal products and vehicles both in and outside of China (“**Tantech’s Business**”);

WHEREAS, Farmmi processes and sells agricultural food products, such as edible fungi both in and outside of China (“**Farmmi’s Business**”); and

WHEREAS, CN Energy manufactures and supplies wood-based activated carbon that is primarily used in pharmaceutical manufacturing, industrial manufacturing, water purification, environmental protection, and food and beverage production, and produces biomass electricity generated in the process of producing activated carbon (“**CN Energy’s Business**”);

NOW, THEREFORE, the Parties hereby agree as follows:

1. Party A and Party B shall not, in their capacity as a shareholder, beneficial owner, director and/or officer of Tantech, vote in favor or otherwise directly or indirectly cause or approve Tantech to engage in Farmmi’s Business and CN Energy’s Business, and shall vote against or disapprove Tantech to engage in Farmmi’s Business and CN Energy’s Business.
2. Party A and Party B shall not, in their capacity as a shareholder, beneficial owner, director and/or officer of Farmmi, vote in favor or otherwise directly or indirectly cause or approve Farmmi to engage in Tantech’s Business and CN Energy’s Business, and shall vote against or disapprove Farmmi to engage in Tantech’s Business and CN Energy’s Business.
3. Party A and Party B shall not, in their capacity as a shareholder, beneficial owner, director and/or officer of CN Energy, vote in favor or otherwise directly or indirectly cause or approve CN Energy to engage in Tantech’s Business and Farmmi’s Business, and shall vote against or disapprove CN Energy to engage in Tantech’s Business and Farmmi’s Business.
4. This Agreement is effective since the date written above. This Agreement terminates when Farmmi ceases its application procedure to be listed on any stock exchange, or when each of Farmmi, Tantech and CN Energy is no longer listed on any stock exchange in the United States.
5. This Agreement constitutes the full and entire understanding and agreement between and among the Parties with regard to the subject matter hereof. Any term of this Agreement may be amended only with the written consent of each Party. As to Farmmi, Tantech and CN Energy, such written consent will require the approval of a majority of each of Farmmi’s, Tantech’s, and CN Energy’s board of directors; provided, however, that each of Party A and Party B shall recuse themselves from such votes.
6. This Agreement is governed by PRC law.
7. This Agreement constitutes the entire understanding between the signatories and supersedes and cancels all prior written and oral agreements and understandings with respect to the subject matter of this Agreement, including but not limited to the non-competition agreement entered into by Party A, Party B, Tantech and Farmmi on June 30, 2017.

IN WITNESS WHEREOF, the signatories have executed this Agreement as of the date written above.

*[Signature page follows]*

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**Party A: Zhengyu Wang**

Signature: \_\_\_\_\_

**Party B: Yefang Zhang**

Signature: \_\_\_\_\_

**Tantech Holdings Ltd.**

By: \_\_\_\_\_  
CEO: Wangfeng Yan

**Farmmi, Inc.**

By: \_\_\_\_\_  
CEO: Yefang Zhang

**CN Energy Group. Inc.**

By: \_\_\_\_\_  
CEO: Kangbin Zheng

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## TANTECH HOLDINGS LTD

## List of Subsidiaries and Consolidated Affiliated Entities

<i>Company Name (English)</i>	<i>Company Name (Chinese)</i>	<i>Country of Incorporation/Formation</i>	<i>Ownership</i>
USCNHK Group Limited	N/A	Hong Kong	Wholly owned subsidiary of Tantech Holdings Ltd
EAG International Vantage Capitals Limited	欧亚通国际资本有限公司	Hong Kong	Wholly owned subsidiary of Tantech Holdings Ltd
Tantech Holdings (Lishui) Co., Ltd.	碳博士控股(丽水)有限公司	People's Republic of China	Wholly owned subsidiary of USCNHK Group Limited
Euroasia New Energy Automotive (Jiangsu) Co., Ltd.	欧亚通新能源(江苏)汽车有限公司	People's Republic of China	Wholly owned subsidiary of EAG International Vantage Capitals Limited
Shanghai Jiamu Investment Management Co., Ltd.	上海佳木投资管理有限公司	People's Republic of China	Wholly owned subsidiary of EAG International Vantage Capitals Limited
Lishui Xincai Industrial Co., Ltd.	丽水鑫财实业有限公司	People's Republic of China	Wholly owned subsidiary of Tantech Holdings (Lishui) Co., Ltd.
Zhejiang Tantech Bamboo Charcoal Co., Ltd	浙江富来森竹炭有限公司	People's Republic of China	Wholly owned subsidiary of Lishui Xincai Industrial Co., Ltd.
Lishui Jikang Energy Technology Co., Ltd.	丽水吉康能源科技有限公司	People's Republic of China	Wholly owned subsidiary of Lishui Xincai Industrial Co., Ltd.
Hangzhou Tanbo Technology Co., Ltd.	杭州炭博科技有限公司	People's Republic of China	Wholly owned subsidiary of Lishui Xincai Industrial Co., Ltd.
Zhejiang Tantech Bamboo Technology Co., Ltd	浙江富来森中竹科技有限公司	People's Republic of China	Wholly owned subsidiary of Lishui Jikang Energy Technology Co., Ltd.
Hangzhou Wangbo Investment Management Co., Ltd.	杭州王博投资管理有限公司	People's Republic of China	Consolidated affiliated variable interest entity controlled solely by Shanghai Jiamu Investment Management Co., Ltd.
Hangzhou Jiye Investment Management Co., Ltd.	杭州吉益投资管理有限公司	People's Republic of China	Wholly owned subsidiary of Shanghai Jiamu Investment Management Co., Ltd.
Shangchi Automobile Co., Ltd.	上驰汽车有限公司	People's Republic of China	51%-owned subsidiary of Hangzhou Wangbo Investment Management Co., Ltd., with the remaining equity interest of 19% and 30% owned, respectively, by Hangzhou Jiye Investment Management Co., Ltd. and an unrelated third party.
Shenzhen Yimao New Energy Sales Co., Ltd.	深圳益茂新能源销售有限公司	People's Republic of China	Wholly owned subsidiary of Shangchi Automobile Co., Ltd.
Lishui Smart New Energy Automobile Co., Ltd.	丽水智动新能源车辆有限公司	People's Republic of China	Wholly owned subsidiary of Tantech Holdings (Lishui) Co., Ltd.
Zhejiang Shangchi New Energy Automobile Co., Ltd.	浙江上驰新能源车辆有限公司	People's Republic of China	Wholly owned subsidiary of Tantech Holdings (Lishui) Co., Ltd.

CERTIFICATION

I, Wangfeng Yan, certify that:

1. I have reviewed this annual report on Form 20-F of Tantech Holdings Ltd;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 27, 2021

By: /s/ Wangfeng Yan

Name: Wangfeng Yan

Title: Chief Executive Officer

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**CERTIFICATION**

I, Weilin Zhang, certify that:

1. I have reviewed this annual report on Form 20-F of Tantech Holdings Ltd;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 27, 2021

By: /s/ Weilin Zhang

Name: Weilin Zhang

Title: Chief Financial Officer

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**CERTIFICATION**

In connection with the Annual Report of Tantech Holdings Ltd (the “Company”) on Form 20-F for the fiscal year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Wangfeng Yan, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 27, 2021

By: /s/ Wangfeng Yan

Name: Wangfeng Yan

Title: Chief Executive Officer

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**CERTIFICATION**

In connection with the Annual Report of Tantech Holdings Ltd (the “Company”) on Form 20-F for the fiscal year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Weilin Zhang, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 27, 2021

By: /s/ Weilin Zhang

Name: Weilin Zhang

Title: Chief Financial Officer

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statements on Form F-3 (File Nos. 333-213240, 333-248197 and 333-251509) and Form S-8 (File Nos. 333-205821 and 333-203387) of our report dated April 27, 2021, with respect to our audit of the consolidated financial statements of Tantech Holdings Ltd and subsidiaries, which appears in this Annual Report on Form 20-F for the year ended December 31, 2020.

*/s/ Prager Metis CPAs, LLC*

Hackensack, New Jersey  
April 27, 2021

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## Tantech Announces Full Year 2020 Financial Results

LISHUI, China, April 27, 2021 – Tantech Holdings Ltd (NASDAQ: TANH) ("Tantech" or the "Company"), a clean energy company in China, today announced its audited financial results for the year ended December 31, 2020.

## Full Year 2020 Financial Results

(\$ millions, expect per share data and percentages)	For the Twelve Months Ended December 31,		
	2020	2019	Change
Revenues	\$ 42.3	\$ 49.2	(14.1) %
Consumer product	\$ 29.4	\$ 45.8	(35.8) %
Trading	\$ 12.5	\$ 3.4	269.3 %
Gross profit	\$ 4.5	\$ 6.0	(25.0) %
Gross margin	10.6%	12.1%	(1.5) percentage points
Net income (loss) attributable to common stockholders of Tantech Holdings Ltd	\$ (6.5)	\$ (6.3)	\$ (0.2)
Basic/ Diluted earnings (loss) per share	\$ (0.22)	\$ (0.22)	\$ 0.0

- Total revenues decreased 14.1% to \$42.3 million from \$49.2 million. The decrease was mainly attributable to the significant decrease of the Company's revenues from consumer products due to COVID-19. However, the Company's revenue from trading segment increased due to higher demands for its bamboo charcoal used for active charcoal masks, air purification and sanitation products in order to combat COVID-19. The Company also had higher revenue from EV segment as compared to 2019.
- During the year 2020, due to the impact of COVID-19, our subsidiary Shangchi Automobile Co., Ltd. ("Shangchi Automobile") was unable to maintain normal operations and all sales and marketing events were disrupted due to travel restrictions and other government regulations. While the spread of COVID-19 has gradually been under control in China, it could adversely affect the Company's business for the future. Shangchi Automobile has no immediate business plan to start manufacturing the electric vehicles. Management determined that the electric vehicle manufacturing license should be impaired. The Company recorded an impairment of \$12.0 million for the year ended December 31, 2020. For the year ended December 31, 2019, the Company recorded an impairment of \$1.1 million because the carrying amount was not recoverable and it exceeded its fair value based on the management's assessment for the electric vehicle manufacturing license.
- Gross profit decreased 25% to \$4.5 million in 2020 from \$6.0 million in 2019, and gross margin decreased to 10.6% from 12.1%, primarily due to lower revenues, and higher raw materials and supply chain costs, in the full year 2020 compared to the full year 2019. As a joint effort to fight COVID-19, the Company charged lower gross margin for certain orders. As a result, the gross margin of trading segment decreased to 5.4% in fiscal 2020 from 32.8% in fiscal 2019.
- Selling expenses increased 205.3% to \$1.0 million in 2020 from \$0.3 million in 2019, as the Company complied with new, higher-cost sales activities, while continuing to invest in online marketing support and expanding its electric vehicle (the "EV") sales efforts during 2020.
- General and administration expenses decreased 79.5% to \$1.0 million in 2020 from \$4.7 million in 2019. The decrease was primarily attributable to the recovery of bad debt provision of \$1.3 million in 2020 as compared to 2019.
- Research and development expenses increased \$0.9 million in 2020 from \$0.3 million in 2019, primarily due to increased activities related to electrical battery and vehicle research in the Company's electric vehicle segment, mainly on driverless street sweepers, as compared to the same period last year.

- Other expenses decreased 25.3% to \$0.3 million from \$0.4 million, primarily due to lower interest expense in 2020, as compared to 2019.
- Net loss attributable to common stockholders of Tantech Holdings Ltd was increased to \$6.5 million for the full year 2020 from a net loss of \$6.3 million for the full year 2019, with net loss per share on both a basic and diluted basis of \$0.22 in 2020 compared to \$0.22 in 2019.
- The Company maintains a positive working capital as of December 31, 2020 and generated positive cash flows from its operations for the years ended December 31, 2020 and 2019. As of December 31, 2020, the Company had a \$37.1 million balance of cash and cash equivalents, with total shareholders' equity of approximately \$99.5 million.

Mr. Wangfeng Yan, Chief Executive Officer of Tantech, said, "Our team remained focused during 2020 and adjusted to the global COVID-19 challenges. Government restrictions and closures slowed growth in our business, including the sales of our electric vehicles. We moved quickly, however, when the economy re-opened to restart our R&D efforts and re-engage with our supply channel and customers. On the other side, demand was stable in 2020 for our bamboo-based charcoal products, and our revenue from trading segment increased due to higher demands for our bamboo charcoal used for active charcoal masks, air purification and sanitation products in order to combat COVID-19. We were pleased that our strong supply chain relationships put us in a position to help people in such a difficult time."

Mr. Wangfeng Yan, Chief Executive Officer of Tantech, added, "We will continue to leverage our leadership position in the charcoal products industry to drive revenue, profit growth and increased operating cash flow. There are many opportunities in front of us given the estimated \$30 billion size of the domestic China market for bamboo production, and bamboo's position as a pillar industry of economic development. Our many innovations and strong brand recognition give us a competitive advantage, as we work to achieve the Company's long-term strategic objectives. At the same time, we continue to build momentum in the EV market, where we currently hold more than 20 core technologies and patents about EV, including nanotechnology for raw materials for power lithium electronics, group technology of power lithium electronics and battery management technology. Our priority remains on leveraging our R&D expertise to develop new energy-efficient specialty-use electric vehicles, including driverless street sweepers. Our engineers have built sleek, high efficiency, low-operating-cost vehicles for the industrial market. Overall, we like the industrial EV market segment given its size, global footprint and support of favorable infrastructure policies in major markets."

#### **About Tantech Holdings Ltd**

For the past decade, Tantech has been a highly specialized high-tech enterprise producing, researching and developing bamboo charcoal-based products with an established domestic and international sales and distribution network. Since 2017 when the Company acquired 70% of Shangchi Automobile, a vehicle manufacturer based in Zhangjiagang City, Jiangsu Province, it has manufactured and sold vehicles. The Company established two new subsidiaries in November 2020, with the plan to produce and sell street sweepers and other electric vehicles. The Company is fully ISO 90000 and ISO 14000 certified and has received a number of national, provincial and local honors, awards and certifications for its quality products and scientific research efforts. For more information please visit: <http://ir.tantech.cn>.

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**Forward-Looking Statements**

*This news release contains forward-looking statements as defined by the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements concerning plans, objectives, goals, strategies, future events or performance, and underlying assumptions and other statements that are other than statements of historical facts. These statements are subject to uncertainties and risks including, but not limited to, product and service demand and acceptance, changes in technology, economic conditions, the impact of competition and pricing, government regulations, and other risks contained in reports filed by the company with the Securities and Exchange Commission. All such forward-looking statements, whether written or oral, and whether made by or on behalf of the Company, are expressly qualified by this cautionary statement and any other cautionary statements which may accompany the forward-looking statements. In addition, the Company disclaims any obligation to update any forward-looking statements to reflect events or circumstances after the date hereof.*

**For more information, please contact:**

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**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Balance Sheets**

	December 31, 2020	December 31, 2019
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents (Note 3 at VIE)	\$ 37,119,195	\$ 12,440,457
Restricted cash (Note 3 at VIE)	220,109	205,520
Accounts receivable, net (Note 3 at VIE)	34,410,597	39,352,408
Inventories, net (Note 3 at VIE)	671,251	595,627
Advances to suppliers, net (Note 3 at VIE)	6,854,461	13,079,889
Advances to suppliers – related party	1,533,000	-
Prepaid taxes (Note 3 at VIE)	1,046,667	2,396,349
Prepaid expenses and other receivables, net (Note 3 at VIE)	45,467	91,377
<b>Total Current Assets (Note 3 at VIE)</b>	<b>81,900,747</b>	<b>68,161,627</b>
<b>Property, plant and equipment, net (Note 3 at VIE)</b>	<b>2,477,912</b>	<b>2,700,034</b>
<b>Other Assets</b>		
Manufacturing rebate receivable (Note 3 at VIE)	5,755,237	7,746,116
Intangible assets, net (Note 3 at VIE)	664,033	12,959,017
Long-term Investment	25,497,316	23,883,983
<b>Total Other Assets (Note 3 at VIE)</b>	<b>31,916,586</b>	<b>44,589,116</b>
<b>Total Assets (Note 3 at VIE)</b>	<b>\$ 116,295,245</b>	<b>\$ 115,450,777</b>
<b>Liabilities and Stockholders' Equity</b>		
<b>Current Liabilities</b>		
Short-term bank loans	\$ 5,564,790	\$ 6,861,208
Bank acceptance notes payable (Note 3 at VIE)	1,753,109	205,520
Accounts payable (Note 3 at VIE)	1,543,994	1,650,851
Due to related parties (Note 3 at VIE)	2,019,087	1,838,603
Customer deposits (Note 3 at VIE)	3,183,088	6,742,659
Taxes payable (Note 3 at VIE)	571,354	102,704
Due to third parties	306,600	287,200
Accrued liabilities and other payables (Note 3 at VIE)	1,861,835	1,444,896
<b>Total Current Liabilities (Note 3 at VIE)</b>	<b>16,803,857</b>	<b>19,133,641</b>
Deferred tax liability (Note 3 at VIE)	-	1,784,875
<b>Total Liabilities (Note 3 at VIE)</b>	<b>16,803,857</b>	<b>20,918,516</b>
<b>Stockholders' Equity</b>		
Common stock, \$0.001 par value, 50,000,000 shares authorized, 35,894,097 and 28,853,242 shares issued and outstanding as of December 31, 2020 and 2019, respectively	35,894	28,853
Additional paid-in capital	48,392,181	39,310,178
Statutory reserves	6,437,506	6,379,276
Retained earnings	45,480,031	52,058,681
Accumulated other comprehensive loss	(1,493,070)	(7,590,943)
<b>Total Stockholders' Equity attributable to the Company</b>	<b>98,852,542</b>	<b>90,186,045</b>
Noncontrolling interest	638,846	4,346,216
<b>Total Stockholders' Equity</b>	<b>99,491,388</b>	<b>94,532,261</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$ 116,295,245</b>	<b>\$ 115,450,777</b>

**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Statements of Comprehensive Income (Loss)**

	<b>For the Years Ended December 31,</b>		
	<b>2020</b>	<b>2019</b>	<b>2018</b>
<b>Revenues</b>	\$ 42,283,670	\$ 49,230,570	\$ 29,561,399
<b>Cost of revenues</b>	37,807,297	43,253,070	21,532,319
<b>Gross Profit</b>	<u>4,476,373</u>	<u>5,977,500</u>	<u>8,029,080</u>
<b>Operating expenses</b>			
Selling expenses	977,201	319,946	320,479
General and administrative expenses	955,210	4,655,382	4,971,804
Impairment of goodwill and intangible asset	11,998,606	9,584,000	-
Research and development expenses	890,316	327,260	386,628
Total operating expenses	<u>14,821,333</u>	<u>14,886,588</u>	<u>5,678,911</u>
<b>Income (loss) from operations</b>	<u>(10,344,960)</u>	<u>(8,909,088)</u>	<u>2,350,169</u>
<b>Other income (expenses)</b>			
Interest income	50,732	53,060	56,894
Interest expense	(300,125)	(443,262)	(626,343)
Other (loss) income, net	(39,530)	3,669	247,069
Total other expenses	<u>(288,923)</u>	<u>(386,533)</u>	<u>(322,380)</u>
<b>(Loss) income before income tax expense (credit)</b>	(10,633,883)	(9,295,621)	2,027,789
<b>Income tax expense (credit)</b>	(611,655)	363,662	1,031,158
<b>Net (loss) income from continuing operations</b>	<u>(10,022,228)</u>	<u>(9,659,283)</u>	<u>996,631</u>
<b>Discontinued operation:</b>			
Income from discontinued operations, net of tax	-	270,479	83,367
Loss from disposal of discontinued operations	-	(569,891)	-
<b>Net (loss) income from discontinued operations</b>	<u>-</u>	<u>(299,412)</u>	<u>83,367</u>
<b>Net (loss) income</b>	(10,022,228)	(9,958,695)	1,079,998
Less: net loss attributable to noncontrolling interest from continuing operations	(3,501,808)	(3,601,728)	(896,769)
<b>Net (loss) income attributable to common stockholders of Tantech Holdings Ltd</b>	<u>\$ (6,520,420)</u>	<u>\$ (6,356,967)</u>	<u>\$ 1,976,767</u>
<b>Net (loss) income</b>	(10,022,228)	(9,958,695)	1,079,998
<b>Other comprehensive income (loss):</b>			
Foreign currency translation adjustment	5,892,311	(5,494,731)	(949,689)
<b>Comprehensive (loss) income</b>	<u>(4,129,917)</u>	<u>(15,453,426)</u>	<u>130,309</u>
Less: Comprehensive loss attributable to noncontrolling interest	(3,707,370)	(3,571,880)	(881,364)
<b>Comprehensive income (loss) attributable to common stockholders of Tantech Holdings Ltd</b>	<u>\$ (422,547)</u>	<u>\$ (11,881,546)</u>	<u>\$ 1,011,673</u>
<b>(Loss) earnings per share - Basic and Diluted</b>			
Continuing operations	<u>\$ (0.22)</u>	<u>\$ (0.21)</u>	<u>\$ 0.07</u>
Discontinued operations	<u>\$ 0.00</u>	<u>\$ (0.01)</u>	<u>\$ 0.00</u>
Total	<u>\$ (0.22)</u>	<u>\$ (0.22)</u>	<u>\$ 0.07</u>
<b>Weighted Average Shares Outstanding - Basic and Diluted</b>			
Continuing operations and discontinued operations	<u>29,566,243</u>	<u>28,853,242</u>	<u>28,745,571</u>

**Tantech Holdings Ltd and Subsidiaries**  
**Consolidated Statements of Cash Flows**

	<b>For the Years Ended December 31,</b>		
	<b>2020</b>	<b>2019</b>	<b>2018</b>
<b>Cash flows from operating activities</b>			
Net (loss) income	\$ (10,022,228)	\$ (9,958,695)	\$ 1,079,998
Net loss (income) from discontinued operations	-	299,412	(83,367)
Net (loss) income from continuing operations	(10,022,228)	(9,659,283)	996,631
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
(Reversal of) Allowance for doubtful accounts - accounts receivable	(845,416)	1,297,752	910,811
(Reversal of) Allowance for doubtful accounts - advance to suppliers	(378,233)	164,220	777,848
(Reversal of) Allowance for doubtful accounts – other receivables	(84,573)	705,400	66,305
Allowance for doubtful accounts - due from related party	-	-	364,288
Inventory reserve	92,064	1,030,236	700,379
Impairment of goodwill and intangible asset	11,998,606	9,584,000	-
Decrease in deferred tax liability	(1,799,791)	(165,500)	-
Depreciation expense	436,427	462,639	628,144
Amortization of intangible asset	441,489	441,489	443,318
Amortization of prepaid consulting expense	-	140,738	102,263
Loss (gain) from disposal of property, plant and equipment	68,614	(8,047)	(44,814)
Issuance of common stock for service	33,812	-	-
<b>Changes in operating assets and liabilities:</b>			
Accounts receivable - non-related party	8,024,036	(9,879,682)	7,023,546
Accounts receivable - related party	-	-	3,249,359
Advances to suppliers	7,093,022	415,727	(3,555,851)
Advances to suppliers, non-current	-	-	1,558,916
Advances to suppliers - related party	(1,448,000)	-	-
Inventory	(125,492)	242,142	(147,485)
Prepaid expenses and other receivables	133,768	9,127	767,849
Manufacturing rebate receivable	2,374,720	1,563,840	(644,959)
Accounts payable	(206,261)	(751,363)	(2,621,226)
Accrued liabilities and other payables	313,552	(78,923)	49,492
Customer deposits	(3,792,409)	6,184,836	(115,771)
Collection of receivable from discontinued operations	-	8,962,187	-
Taxes payable	1,863,853	(597,392)	573,660
<b>Net cash provided by continuing operations</b>	<b>14,171,560</b>	<b>10,064,143</b>	<b>11,082,703</b>
<b>Net cash provided by discontinued operations</b>	<b>-</b>	<b>4,632,769</b>	<b>3,582,177</b>
<b>Net cash provided by operating activities</b>	<b>14,171,560</b>	<b>14,696,912</b>	<b>14,664,880</b>
<b>Cash flows from investing activities</b>			
Acquisition of property, plant and equipment	(144,806)	(92,369)	(559,038)
Proceeds from disposal of property, plant and equipment	21,842	16,580	54,089
Additions to intangible assets	-	-	(2,585)
Payment for investment	-	(6,707,570)	(17,448,000)
Proceeds from disposition of subsidiaries	-	854,567	-
<b>Net cash used in continuing operations</b>	<b>(122,964)</b>	<b>(5,928,792)</b>	<b>(17,955,534)</b>
<b>Net cash used in discontinued operations</b>	<b>-</b>	<b>(1,522)</b>	<b>(39,976)</b>
<b>Net cash used in investing activities</b>	<b>(122,964)</b>	<b>(5,930,314)</b>	<b>(17,995,510)</b>
<b>Cash flows from financing activities</b>			
Proceeds from (repayment of) loans from third parties	-	(2,823,890)	2,455,806
Notes receivable	-	-	14,540
Bank acceptance notes payable, net of repayment	1,448,667	(1,823,003)	(4,560,185)
Proceeds from bank loans	9,568,384	6,918,544	10,291,412
Repayment of bank loans	(11,230,688)	(7,352,944)	(7,835,606)
Proceeds from (repayment of) loans from related parties, net	98,474	(378,833)	(1,175,971)
Proceeds from issuance of common stock and warrants	9,055,232	-	-
<b>Net cash provided by (used in) continuing operations</b>	<b>8,940,069</b>	<b>(5,460,126)</b>	<b>(810,004)</b>
<b>Net cash provided by discontinued operations</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net cash provided by (used in) financing activities</b>	<b>8,940,069</b>	<b>(5,460,126)</b>	<b>(810,004)</b>
Effect of exchange rate changes on cash, restricted cash and cash equivalents	1,704,662	(530,288)	390,992
<b>Net increase (decrease) in cash, restricted cash and cash equivalents</b>	<b>24,693,327</b>	<b>2,776,184</b>	<b>(3,749,642)</b>
<b>Cash, restricted cash and cash equivalents, beginning of year</b>	<b>12,645,977</b>	<b>9,869,793</b>	<b>13,619,435</b>
<b>Cash, restricted cash and cash equivalents, end of year</b>	<b>\$ 37,339,304</b>	<b>\$ 12,645,977</b>	<b>\$ 9,869,793</b>

**Supplemental disclosure information:**

Income taxes paid	\$ 436,566	\$ 1,105,876	\$ 1,044,480
Interest paid	\$ 308,690	\$ 439,869	\$ 608,048

**Supplemental non-cash activities:**

Common shares issued for service	\$ 33,812	\$ -	\$ 243,000
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