

SUMMARY

This summary aims to give you an overview of the information contained in this document. As this is a summary, it does not contain all the information that may be important to you. You should read this document in its entirety before you decide whether to invest in the [REDACTED]. There are risks associated with any investment. Some of the particular risks in investing in the [REDACTED] are set out in the section headed “Risk Factors” in this document. You should read that section carefully before you decide whether to invest in the [REDACTED].

OVERVIEW

We are a leading technology-based hydrogen fuel cell company in the PRC focusing on research, development, production and sales of hydrogen fuel cell stacks and hydrogen fuel cell systems. We are dedicated to creating a clean and sustainable world, leading the way in hydrogen energy and creating the future together. Through continued technological innovations and product iterations, we have contributed to the transformation of the hydrogen fuel cell industry as well as the development and commercialization of the hydrogen energy technologies in the PRC since our establishment. According to Frost & Sullivan, we are a leading market player in the hydrogen fuel cell industry in the PRC, and we ranked first in terms of hydrogen fuel cell stacks shipment volume for six consecutive years from 2017 to 2022 and second in terms of shipment volume of hydrogen fuel cell systems in 2022. Leveraging our (i) advanced proprietary technologies and leading research and development capabilities, (ii) cost-effective and mass-production capabilities, (iii) proven ability in operations and market expansions and (iv) years of experience in collaborations with the upstream and downstream participants in our industry, we have succeeded in the independent research and development of products, the domestic procurement and production of core raw materials and production machineries and the high-quality mass-production, continuously leading the development of hydrogen fuel cell industry in the PRC.

Our shipment volume of hydrogen fuel cell stacks has exceeded 550MW as of the Latest Practicable Date. Our production facility in Yunfu commenced operation in 2017, which was the world’s largest hydrogen fuel cell stacks production facility at that time and has continued to maintain the industry-leading level since then and up to the Latest Practicable Date in terms of production capacity. Since we began production of our hydrogen fuel cell stacks in 2017, we have been leading the way for the commercialization of the hydrogen fuel cell technologies in the PRC. With the expertise of our research and development team and our experience in the mass-production and commercialization of hydrogen fuel cell products, we have led or participated in the formulation of more than 20 national and industry standards for the hydrogen fuel cell industry, including testing and evaluation method for lifespan and durability of PEM fuel cell stack in vehicles (《車用質子交換膜燃料電池堆使用壽命測試評價方法》). We have either been one of the major drafters of or provided advice to those standards based on our expertise and research and development capabilities. We also led or participated in a series of national, provincial and municipal research projects, connected both the upstream and downstream of the hydrogen fuel cell industry, and have become a leading comprehensive hydrogen fuel cell company, spearheading the evolution of the hydrogen energy industry.

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Our Industry

Supportive government policies can be key to the development of and the long-term growth driver for an industry. The hydrogen fuel cell industry in China is largely driven by the PRC government policies. In April 2020, the PRC government issued the Notice on Government Subsidies for Promotion and Application of New Energy Vehicles (《關於完善新能源汽車推廣應用財政補貼政策的通知》), which stipulated that the policy of “award in lieu of subsidy (以獎代補)” will be carried out for hydrogen fuel cell vehicles. In September 2020, the Ministry of Finance, together with several other PRC government departments, jointly issued the Notice on Launching the Pilot Application of Fuel Cell Vehicles (《關於開展燃料電池汽車示範應用的通知》) (the “**Notice**”) to carry out the pilot adoption of hydrogen fuel cell vehicles in order to promote the sustained and orderly development of hydrogen fuel cell vehicle industry in China. In particular, the Notice stated that the awards were to be used for the industrialization of key core technologies of hydrogen fuel cell vehicles, talents recruitment, and the demonstration and application of new models and new technologies. Since August 2021, the PRC government has approved five hydrogen fuel cell vehicle demonstrative city clusters, including Beijing, Shanghai, Guangdong Province, Hebei Province, and Henan Province, all of which support various types of hydrogen fuel cell vehicles, such as passenger vehicles, light- and heavy-duty trucks and commercial buses. For more information on demonstrative city clusters, please see “Industry Overview – Overview of Hydrogen Fuel Cell Stacks and Systems Market – Overview of the Supportive Policies for the Hydrogen Fuel Cell Stacks and Systems Market” in this document.

In addition to the policies mentioned above, local governments also provided additional support to the hydrogen fuel cell vehicles and hydrogen fuel cell systems industry participants, echoing the national development strategy. For instance, Guangdong Province issued the Action Plan for Accelerating the Construction of Fuel Cell Vehicle Demonstration City Clusters (2022-2025) (《廣東省加快建設燃料電池汽車示範城市群行動計劃(2022-2025年)》), which sets the goal of promoting over 10,000 hydrogen fuel cell vehicles by 2025 and emphasized on supporting the development of key components of the hydrogen fuel cell industry, including hydrogen fuel cell stacks, MEAs and bipolar plates, through measures such as providing monetary awards for the research and development of these key components. For more information on the government-promulgated supportive policies, please refer to “Industry Overview – Overview of Hydrogen Fuel Cell Stacks and Systems Market – Overview of the Supportive Policies for the Hydrogen Fuel Cell Stacks and Systems Market” in this document.

The national and local governments’ supportive policies, along with the other relevant “award in lieu of subsidy (以獎代補)” policies and the subsidy policies before 2020, were key in promoting the development of the hydrogen fuel cell industry in China by providing incentives to the market participants and directly benefitted participants along the industry value chain, including hydrogen fuel cell vehicle manufacturers, hydrogen fuel cell systems and fuel cell stacks manufacturers like us, and upstream key parts and components suppliers such as the manufacturers of MEAs and DC-to-DC converters. The focus of the awards policies on the industrialization of key core technologies of hydrogen fuel cell vehicles particularly drove the growth of the hydrogen fuel cell stacks and systems market as it encouraged, incentivized and provided funding for the industry development in the direction of key technologies such as those used in the hydrogen fuel cell stacks and hydrogen fuel cell systems. For more information on the policy support for the hydrogen fuel cell market, please refer to “Industry Overview – Overview of Hydrogen Fuel Cell Stacks and Systems Market – Overview of the Supportive Policies for the Hydrogen Fuel Cell Stacks and Systems Market” in this document.

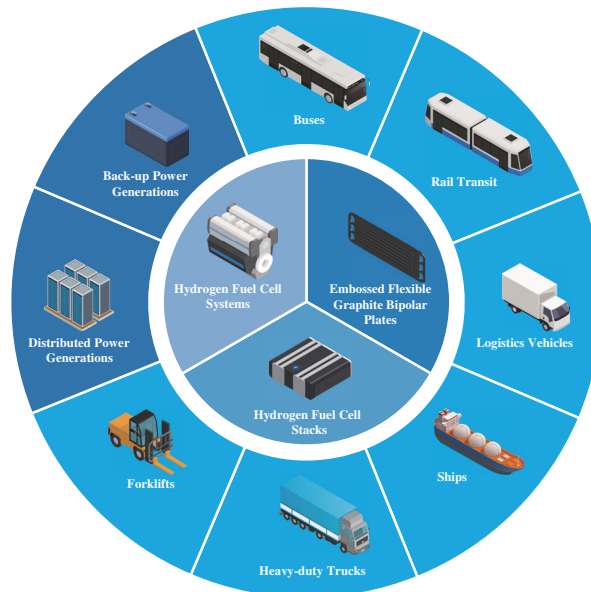
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The PRC government usually updates the awards policies for hydrogen fuel cell vehicles each year. Given that China’s hydrogen fuel cell vehicle industry is still developing, it will continue to be affected by government subsidies and the annual periodicity of automobile production in the foreseeable future. As such, the future performance and demand of our products rely significantly on government policies and the hydrogen fuel cell vehicle industry development. For more information on the supportive policies and the relevant risks, please refer to “Industry Overview – Overview of Hydrogen Fuel Cell Stacks and Systems Market – Drivers and Development Trend Analysis of Hydrogen Fuel Cell Stacks and Systems Market in China” and “Risk Factors – Risks Relating to Our Industry and Business” in this document.

Our Products

During the Track Record Period, the embossed flexible graphite bipolar plates we produced were mainly utilized for our further production of hydrogen fuel cell stacks, and our hydrogen fuel cell stacks were mainly (i) incorporated into our hydrogen fuel cell systems or (ii) sold to hydrogen fuel cell system manufacturers for further incorporation into their hydrogen fuel cell systems. Our hydrogen fuel cell systems were mainly sold to downstream transit applications customers, and to a much lesser extent, downstream stationary applications customers. Transit applications mainly include: (i) commercial vehicles such as buses, logistic vehicles and heavy-duty trucks, (ii) construction vehicles such as forklifts, (iii) rail transit, and (iv) ships. Stationary applications mainly include distributed power generations and back-up power generations. During the Track Record Period, approximately 93% or more of the revenue generated each year was from transit applications, primarily buses and heavy-duty trucks, and revenue generated from other transit applications and stationary applications was much lower in comparison. However, as the industry develops and our product portfolio expands, we expect to establish a more substantial and broader presence in other applications.

Below is an illustration of our products and their applications:



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Through years of operating experience and the strive for excellence, we have been leading in technological capability, product quality, manufacturing techniques as well as reliable and timely product delivery. As advised by Frost & Sullivan, our products have been proven to be leading the industry in terms of:

- (i) *power density* – our hydrogen fuel cell stacks have highly reliable sealing and control mechanism under high current density, which enable the rapid molding of high-precision plates, continuous assembly of the stacks, and rapid activation of the stacks. For example, we have successfully developed and achieved mass-production of the SynStack GIII, a hydrogen fuel cell stack product to which we own the core intellectual property rights. SynStack GIII has a high power density of 4.5kW/L, representing a substantial improvement in our hydrogen fuel cell stack technology;
- (ii) *freeze-start temperature* – our hydrogen fuel cell systems have advanced low freeze-start temperature technology. A majority of our hydrogen fuel cell systems have achieved a freeze-start temperature of -30°C;
- (iii) *lifespan* – the latest generation of our hydrogen fuel cell stacks has an expected long lifespan of more than 30,000 hours; and
- (iv) *quality, process consistency, and performance stability* – in respect of the production process of our embossed flexible graphite bipolar plates, being one of the key components of hydrogen fuel cell stacks, we utilize our independently designed molding technology to ensure the stability of the hydrogen fuel cell stacks when used in series. As a result, the defect rate of our embossed flexible graphite bipolar plates is less than 5%, which is at an industry-leading level as the average defect rate for manufacturing graphite bipolar plates using the same techniques in the PRC is over 20%, as advised by Frost & Sullivan. In addition, the bending strength of our embossed flexible graphite bipolar plates has reached over 50Mpa while its thickness has been reduced to 1.5mm, both of which are on par with the industry-leading levels, according to Frost & Sullivan.

In respect of our quality control system, we took the lead in obtaining ISO9001:2015 and IATF16949:2016 quality control system certifications. We were also one of the first batch of hydrogen fuel cell companies to obtain IATF16949 quality system certification in China.

In addition, with the support of cutting-edge technology, we have led the industry in setting various standards. These standards provide the industry with a comparable and practical unified evaluation benchmark for hydrogen fuel cell systems, paving the way for achieving the national “dual carbon (雙碳)” policy. Moreover, few companies possess the technological and vertical integration capabilities that allowed us to (i) manufacture embossed flexible graphite bipolar plates in-house, (ii)

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self-develop and manufacture hydrogen fuel cell stacks equipped with our embossed flexible graphite bipolar plates, and (iii) self-develop and manufacture hydrogen fuel cell systems equipped with our hydrogen fuel cell stacks, according to Frost & Sullivan.

Leveraging the industry-leading performance, our products have been extensively validated and recognized in the market. Having seized the opportunities of transit applications, the number of commercial vehicles installed with our products accounted for more than 50% of the hydrogen fuel cell commercial vehicles in operation nationwide as of the Latest Practicable Date. We have also been exploring hydrogen energy solutions in a wide range of applications that present market opportunities. For example, in September 2022, five hydrogen-powered rubber-tyred digital rail trams equipped with our SynRoad series hydrogen fuel cell systems were put into operation in Lin-Gang Special Area of Shanghai, which contributed to the promotion and application of hydrogen fuel cells in the rail transit industry.

We have also assembled a team of specialists with solid research and development capabilities, excellent strategic vision and diversified market expansion insights to embrace huge market opportunities and contribute to the adoption of clean energy in the PRC amid the wave of the global energy transformation.

OUR COMPETITIVE STRENGTHS

We believe our previous success is attributable to the following competitive strengths: (i) a leader in the hydrogen fuel cell industry in the PRC, benefiting from the national and local supportive policies and the huge growth potential of the hydrogen industry; (ii) strong technological capabilities and quality control systems, which set the standards high for competition; (iii) “domestic + scaled + integrated” production, which promotes cost-effectiveness and keeps us ahead of competition; (iv) proven ability to satisfy the various power demands with rich hydrogen fuel cell product matrix and comprehensive applications; (v) strong relationship with upstream suppliers and downstream customers for mutually beneficial collaborations, which fosters industry ecosystem; and (vi) visionary management team comprising largely of experienced experts of hydrogen fuel cell industry.

OUR STRATEGIES

To achieve our business objectives, we intend to leverage our competitive strengths and implement the following strategies: (i) further investment in research and development of core products to improve product performance and competitiveness; (ii) expand production capacity in accordance with local policies and opportunities; (iii) actively venture into raw materials and components aspects of the industry and enhance industry-wide synergies; (iv) expand the applications of hydrogen fuel cell technology and accelerate the commercialization of hydrogen energy industry; and (v) continue to attract and cultivate professional talents, improve team building, the utilization of information technology, as well as management and operation efficiency.

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OUR OPERATION

We focus on the research, development, production and sale of hydrogen fuel cell stacks and hydrogen fuel cell systems. According to Frost & Sullivan, we occupied the largest market share at 24.4% in terms of shipments of hydrogen fuel cell stacks and the second largest market share at 21.8% in terms of shipments of hydrogen fuel cell systems in the PRC for the year ended 31 December 2022. The end customers of our hydrogen fuel cell stacks and hydrogen fuel cell systems generally include, among others, bus companies, logistics and transportation companies, ports, factories and rail companies.

The table below sets forth a breakdown of our revenue by product type, each expressed as an absolute amount and as percentage of our total revenue, during the Track Record Period.

	For the year ended 31 December					
	2020		2021		2022	
	RMB'000	%	RMB'000	%	RMB'000	%
Hydrogen fuel cell stacks	109,511	48.3	26,499	5.8	11,877	1.6
Hydrogen fuel cell systems	112,913	49.8	413,648	90.5	732,482	97.9
Others ⁽¹⁾	4,459	1.9	16,991	3.7	4,116	0.5
Total revenue	226,883	100.0	457,138	100.0	748,475	100.0

Note:

- (1) Mainly include the occasional sales of hydrogen fuel cell system components and the provision of hydrogen fuel cell related technical services.

Hydrogen fuel cell stack is a core component for producing hydrogen fuel cell system. In 2020, instead of primarily selling our hydrogen fuel cell stacks directly, we began incorporating our hydrogen fuel cell stacks into our hydrogen fuel cell systems, and then sold such systems to downstream customers. As a result, the proportion of revenue generated from our sale of hydrogen fuel cell systems increased significantly during the Track Record Period. We decided and achieved the shift from primarily selling hydrogen fuel cell stacks to primarily selling hydrogen fuel cell systems that incorporated our hydrogen fuel cell stacks mainly as a result of (i) our technological advantages in the hydrogen fuel cell stacks, being a core component of the hydrogen fuel cell systems, enabling us to expand into the market of hydrogen fuel cell systems efficiently and economically and (ii) through strategically putting more efforts on our hydrogen fuel cell systems products, we have been able to obtain more support from customers of those products, such as hydrogen fuel cell vehicle manufacturers, to promote our products. As advised by Frost & Sullivan, compared to those of hydrogen fuel cell stacks, customers of hydrogen fuel cell systems are positioned further as downstream customers in the industry and therefore possess more industry resources of different application scenarios.

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Average Selling Price and Sales Volume

The following table sets forth a breakdown of our sales volume and average selling price of our hydrogen fuel cell stacks and hydrogen fuel cell systems for the years indicated:

	Year ended 31 December					
	2020		2021		2022	
	Sales volume	Average selling price	Sales volume	Average selling price	Sales volume	Average selling price
	<i>kW</i>	<i>RMB per kW</i>	<i>kW</i>	<i>RMB per kW</i>	<i>kW</i>	<i>RMB per kW</i>
Hydrogen fuel cell stacks	37,578.2	2,914.2	13,117.2	2,020.2	7,122.8	1,667.5
Hydrogen fuel cell systems	10,833.0	10,423.1	84,545.0	4,892.6	131,300.0	5,578.7

Average selling price

With years of development and through the shared efforts of upstream and downstream industry participants, the hydrogen fuel cell industry has been advancing in terms of product performance, technological capabilities and cost-effectiveness. With the advancement of technology and manufacturing processes as well as the increased domestic procurement of raw materials and components, the prices of hydrogen fuel cell stacks and hydrogen fuel cell systems were decreasing during the Track Record Period, according to Frost & Sullivan. As one of the leading companies in the industry, we have led the way both in terms of the development of the hydrogen fuel cell industry and in terms of lowering the selling prices of hydrogen fuel cell products to promote the growth of the industry.

To promote the market acceptance of hydrogen fuel cell products and in line with this industry trend, we generally lowered the selling prices of our hydrogen fuel cell stacks and hydrogen fuel cell systems during the Track Record Period. For the years ended 31 December 2020, 2021 and 2022, the average selling price of our hydrogen fuel cell stacks was RMB2,914.2/kW, RMB2,020.2/kW, and RMB1,667.5/kW, respectively. For the years ended 31 December 2020 and 2021, the average selling price of our hydrogen fuel cell systems was RMB10,423.1/kW, and RMB4,892.6/kW, respectively. The average selling price of our hydrogen fuel cell systems increased to RMB5,578.7/kW for the year ended 31 December 2022 as some of our hydrogen fuel cell systems included additional components such as the hydrogen storage systems to cater to some of our customer’s needs and in order to offer a more comprehensive and ready-for-use hydrogen fuel cell solution.

Sales volume

In 2020, although the outbreak of COVID-19 had certain negative impact on the procurement, production and logistics of our customers’ industry, such as the hydrogen fuel cell vehicle industry, and resulted in a delay of the downstream demand for the hydrogen fuel cell stacks and hydrogen fuel cell systems, participants in our industry were making continuous efforts to jointly support the establishment and applications of demonstrative city clusters in order to further promote the commercialization of hydrogen fuel cell products. With the issuance of the “awards in lieu of subsidy (以獎代補)” supportive policy in the third quarter of 2020, market demand increased and the increase continued into 2021 and 2022. For more information on the development of our industry and the supportive policies, please see the “Industry Overview” section of this document.

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Despite the increased demand for hydrogen fuel cell stacks since 2021 in line with the industry trend, the sales volume of our hydrogen fuel cell stacks decreased from the year ended 31 December 2020 to the year ended 31 December 2021 and further to the year ended 31 December 2022 mainly due to our reduced amount of hydrogen fuel cell stacks available for external sales.

The sales volume of our hydrogen fuel cell systems increased significantly during the Track Record Period, along with the industry trend as mentioned above, mainly due to (i) our continuous research and development efforts that improved the reliability of our products, (ii) our efforts to reduce costs and selling prices as mentioned above that promoted the commercialization of our products, (iii) continued collaborations with new and existing customers, such as our strategic collaborations with Xiamen King Long United Automotive Industry Co., Ltd. (廈門金龍聯合汽車工業有限公司) and Zhizi Automotive Technology Co., Ltd. (質子汽車科技有限公司) to jointly develop hydrogen fuel cell vehicle applications, and (iv) our expansion of product portfolio and applications that strengthened our position in the market.

For more information, please refer to “Financial Information – Description of Key Statement of Profit or Loss Items – Revenue”.

Gross Profit and Gross Profit Margin

Our gross profit represents our revenue less our cost of sales, and our gross profit margin represents our gross profit divided by our revenue, expressed as a percentage. The table below sets forth a breakdown of our gross profit and gross profit margin by product type for the years indicated:

	Year ended 31 December					
	2020		2021		2022	
	RMB'000	%	RMB'000	%	RMB'000	%
Gross profit and gross profit margin of sales of goods and services						
Hydrogen fuel cell stacks	36,625	33.4	3,902	14.7	2,272	19.1
Hydrogen fuel cell systems	36,310	32.2	140,814	34.0	198,439	27.1
Others ⁽¹⁾	<u>1,767</u>	39.6	<u>6,203</u>	36.5	<u>1,399</u>	34.0
Subtotal	74,702	32.9	150,919	33.0	202,110	27.0
Impairment loss of inventory and licences ⁽²⁾	<u>(66,720)</u>	N/A	<u>(23,391)</u>	N/A	<u>(43,307)</u>	N/A
Total	<u>7,982</u>	3.5	<u>127,528</u>	27.9	<u>158,803</u>	21.2

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Notes:

- (1) Mainly represent the occasional sales of hydrogen fuel cell systems components and the provision of hydrogen fuel cell related technical services.
- (2) Mainly represent the impairment loss of 9SSL fuel cell stacks license and the impairment loss of inventories; for more information, please refer to “Financial Information – Certain Statement of Financial Position Items – Inventories” and “Financial Information – Description of Key Statement of Profit or Loss Items – Cost of Sales”.

Our gross profit margin increased from 3.5% for the year ended 31 December 2020 to 27.9% for the year ended 31 December 2021 mainly due to an impairment loss of RMB57.4 million on our 9SSL fuel cell stacks license in 2020. However, discounting the impact of the impairment loss on inventory and licenses, which primarily related to our licensed-in or purchased products that were no longer our primary focus after the year ended 31 December 2020 as we launched our self-developed hydrogen fuel cell stacks and hydrogen fuel cell systems, the gross profit margin of sales of goods and services for the years ended 31 December 2020 and 2021 remained relatively stable at 32.9% and 33.0%, respectively. We believe that excluding the impairment loss on inventory and licenses will present helpful information to investors through better evaluation of our current main product’s performance. Our gross profit margin decreased from 27.9% for the year ended 31 December 2021 to 21.2% for the year ended 31 December 2022 mainly due to (i) the decrease of gross profit margin of our hydrogen fuel cell systems which is caused by the lower profit margin of the additional components (i.e. hydrogen storage systems and batteries) procured from third parties that were sold together with our hydrogen fuel cell systems in order to provide a more comprehensive and ready-for-use hydrogen fuel cell solution, and (ii) the increase in impairment loss of our inventories and licences.

For more information, please refer to “Financial Information – Description of Key Statement of Profit or Loss Items – Gross Profit and Gross Profit Margin”.

The following table sets forth a breakdown of our cost of sales by nature during the Track Record Period:

	Year ended 31 December					
	2020		2021		2022	
	RMB’000	%	RMB’000	%	RMB’000	%
Cost of sales of goods and services						
Raw Materials	111,238	73.1	250,624	81.8	486,738	89.1
Hydrogen storage system	–	–	–	–	160,125	29.3
MEA	50,768	33.4	79,942	26.1	102,015	18.7
Battery	–	–	–	–	33,800	6.2
DC-DC	1,837	1.2	21,024	6.9	28,657	5.2
Air compressor	2,715	1.8	25,873	8.4	18,183	3.3

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	Year ended 31 December					
	2020		2021		2022	
	RMB'000	%	RMB'000	%	RMB'000	%
Hydrogen circulation						
pump	1,169	0.8	14,194	4.6	13,678	2.5
Graphite sheets	4,320	2.8	6,793	2.2	10,754	2.0
Humidifier	1,522	1.0	11,514	3.8	10,749	2.0
Deemed consigned						
processing ⁽¹⁾	37,473	24.6	—	—	—	—
Other raw materials ⁽²⁾	11,434	7.5	91,284	29.8	108,777	19.9
Employee benefit						
expenses	9,466	6.2	26,497	8.7	28,869	5.3
Depreciation and						
amortization expense	23,909	15.7	18,091	5.9	19,173	3.5
Others ⁽³⁾	7,568	5.0	11,007	3.6	11,585	2.1
Subtotal	152,181	100.0	306,219	100.0	546,365	100.0
Impairment loss of						
inventory and licences ⁽⁴⁾	66,720		23,391		43,307	
Total	218,901		329,610		589,672	

Notes:

- (1) Mainly derived from the difference between our sales of hydrogen fuel cell stacks and the purchases of hydrogen fuel cell systems which was recorded at cost for deemed consigned processing. For more information, please refer to “Business – Customers – Overlapping of Major Customers and Suppliers” in this document and Note 39(b) of the Accountant’s Report as Appendix I to this document.
- (2) Mainly represent combination valve, water pump, impregnated fabric, epoxy resin and over 20 different miscellaneous parts.
- (3) Mainly represent utilities, repair and maintenance fees, and rental costs.
- (4) Mainly represent the impairment loss of 9SSL fuel cell stacks license and the impairment loss of inventories. For more information, please refer to “Financial Information – Certain Statement of Financial Position Items – Inventories” and “Financial Information – Description of Key Statement of Profit or Loss Items – Cost of Sales.

OUR PRODUCTION

Production Cycle

We adopt a mixed approach for the production of our hydrogen fuel cell stacks and hydrogen fuel cell systems where we commence manufacturing primarily after a customer purchase order is received and confirmed as well as commence manufacturing based on our

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assessment and estimate of the remaining downstream demand for that year, which is helpful to cope with the seasonality of our products’ demands. The production cycle of our products varies depending on the product type, delivery schedule requested by our customers and raw material supply. In general, the production lead time for our hydrogen fuel cell stacks from the first step, being molding processes, to the last step, being packing and storage of finished goods, is around seven days and that for our hydrogen fuel cell systems requires additional three to seven days based on various models. We put great effort in maximizing our production efficiency and utilization rate of raw materials so that we can swiftly respond to changing customer demands while retaining our cost-effectiveness.

Production Seasonality

We generally begin production based on orders received and confirmed and our assessment and estimate of the remaining downstream demand for that year. We generally negotiate with our customers during the first half of the year regarding purchase orders, after which we commence production in the second half of the year. Therefore, the final production completion and delivery time will usually be in the second half of the year. As a result, most of the revenue will be recognized in the second half of the year (especially the fourth quarter). In 2020, 2021 and 2022, our revenue for the second half of the year accounted for a majority of our total revenue in the same year. For more information, please refer to “Business – Seasonality” in this document.

Production Facilities

We currently manufacture and assemble our embossed flexible graphite bipolar plates, the hydrogen fuel cell stacks and the hydrogen fuel cell systems at our production facility in Yunfu, Guangdong Province. To expand our production capacity and meet the growing demands of our products, we plan to construct additional production facilities in multiple regions in the PRC.

As of 31 December 2022, the estimated annual production capacity of our embossed flexible graphite bipolar plates, hydrogen fuel cell stacks and hydrogen fuel cell systems production lines were 1,200,000 pieces of embossed flexible graphite bipolar plates, 300,000kW of hydrogen fuel cell stacks and 2,000 units of hydrogen fuel cell systems, respectively.

For the years ended 31 December 2020, 2021 and 2022, the utilization rates for (i) our embossed flexible graphite bipolar plates were 43.6%, 66.7% and 75.5%, respectively; (ii) our hydrogen fuel cell stacks were 27.2%, 78.8% and 71.7%, respectively; and (iii) our hydrogen fuel cell systems were 29.6%, 61.1% and 61.1%, respectively.

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The following tables set forth the quarterly utilization rate of our embossed flexible graphite bipolar plates, hydrogen fuel cell stacks and hydrogen fuel cell systems for the years indicated, respectively:

(a) Embossed flexible graphite bipolar plates⁽¹⁾

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2020	18.7	37.0	76.2	42.6
2021	30.9	44.7	105.3	85.9
2022	71.1	66.1	71.4	93.3

(b) Hydrogen fuel cell stacks⁽¹⁾

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2020	4.4	19.4	43.2	41.6
2021	17.3	44.0	114.3	139.7
2022	52.7	44.4	100.9	88.7

(c) Hydrogen fuel cell systems⁽¹⁾

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2020 ⁽²⁾	N/A	N/A	40.0	78.4
2021	4.0	47.6	97.4	95.4
2022	18.0	23.0	73.6	129.6

Notes:

- (1) Utilization rate is calculated based on the actual production volume divided by the estimated production capacity.
- (2) The commercial productions of our hydrogen fuel cell system products began in the second half of 2020.

For more information, please refer to “Business – Our Production” in this document.

COMPETITION

According to Frost & Sullivan, the hydrogen fuel cell stacks and the hydrogen fuel cell systems markets have been experiencing high growth in recent years. From 2018 to 2022, shipments of hydrogen fuel cell stacks in China surged from 74.2MW to 716.6MW, with a CAGR of 76.3%, while the shipments of hydrogen fuel cell systems in China surged from 58.7MW to 602.8MW, with a CAGR of 79.0%, both benefiting from the rapid growth of sales of hydrogen fuel cell vehicles in China. However, these markets are relatively concentrated with (i) the four largest hydrogen fuel cell stacks manufacturers commanding a total market share of 70.6% in 2022 in terms of the market size of hydrogen fuel cell stacks by shipment volume in 2022, of which our market share was 24.4%, ranking first and (ii) the four largest hydrogen fuel cell systems manufacturers in terms of shipment volume of hydrogen fuel cell systems commanding a total market share of 75.5% of the market size of hydrogen fuel cell systems by shipment volume in 2022, of which our market share was 21.8%, ranking second.




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Nevertheless, since 2020, the PRC government has pushed vigorously to establish hydrogen demonstrative city clusters and provided awards based on the performance of different projects. In addition, many cities and local governments nationwide proposed initiatives and set targets for hydrogen fuel cell vehicles and related core technologies. For instance, Beijing has set its targets of having a total ownership of 10,370 hydrogen fuel cell vehicles and build 74 hydrogen refueling stations in Beijing by 2025. Therefore, we expect more players to enter this market and the competition to become more intense. We believe that the key competitive factors in this market are technological innovation, product quality and safety, stable customer and supplier relationships, and brand reputation.







See “Industry Overview” for more details of the competitive landscape of the industry in which we operate. For risks relating to our competitiveness in the industry, see “Risk Factors – Risks Related to Our Industry and Business – We face intense market competition and the industry may undergo unforeseen changes under rapid development. If we fail to compete successfully, our business and results of operations may be materially and adversely affected”.

OUR PRODUCTS

The tables below set forth the details of the major series of our hydrogen fuel cell stacks and hydrogen fuel cell systems during the Track Record Period and up to the Latest Practicable Date:

Series	9SSL	SynStack GI	SynStack GIII
Illustrations			
Key specifications			
Thermal management	Liquid-cooled	Liquid-cooled	Liquid-cooled
Power range	5.0-36.7kW	6.0-84.0kW	20.4-204.0kW
Power density	2.5kW/L	3.8kW/L	4.5kW/L
Freeze start temperature	-30°C	-30°C	-35°C
Lifespan	>20,000h	>20,000h	>30,000h
Applications	<ul style="list-style-type: none"> • On-road vehicles • Industrial vehicles • Rail transit • Ships • CHP • Stationary power 	<ul style="list-style-type: none"> • On-road vehicles • Industrial vehicles • Rail transit • Ships • CHP • Stationary power 	<ul style="list-style-type: none"> • On-road vehicles • Industrial vehicles • Rail transit • Ships • CHP • Stationary power

SUMMARY

Series	9SSL			SynStack GI		SynStack GIII
Internal production/ external sales	Internal/external			Internal/external		Internal/external
Commencement of production	2017			2020		2022
Series	SynRoad G110	SynRoad H120	SynRoad H240	SynRail A110	SynPower M2	SynPower S640
Illustrations						
Fuel cell stacks used	SynStack GI	SynStack GIII	SynStack GIII	9SSL	third-party fuel cell stacks ⁽¹⁾	9SSL
Key specifications						
Rated power	110kW	120kW	240kW	110kW	2kW	640kW
Power density	555W/kg	714W/kg	906W/kg	319W/kg	268W/kg	160W/kg
Lifespan	≥20,000h			≥2,000h		≥40,000h
Freeze-start temperature	-30°C			-5°C		-30°C
Applications	<ul style="list-style-type: none"> On-road vehicles Industrial vehicles 	<ul style="list-style-type: none"> On-road vehicles Rail transit Ships Stationary power 	<ul style="list-style-type: none"> On-road vehicles Rail transit Ships Stationary power 	<ul style="list-style-type: none"> Rail transit Industrial vehicles 	<ul style="list-style-type: none"> Emergency power Back-up power Stationary power Base station power 	<ul style="list-style-type: none"> Stationary power CHP
Commencement of production or market launch	2020	2022	2022	2022	2022	2022

Note:

(1) The hydrogen fuel cell stacks used by SynPower M2 were procured from Ballard Power.

SUMMARY

RESEARCH AND DEVELOPMENT

Our focus on research and development has fueled our growth and enabled us to strengthen our market position. We possess frontier hydrogen fuel cells and related technologies and technical know-how to our self-developed hydrogen fuel cell stacks, hydrogen fuel cell systems and embossed flexible graphite bipolar plates, including critical technology and technical know-how for our production processes such as (i) the production of high corrosion resistant embossed flexible graphite bipolar plate by rapid molding of low-cost flexible expanded graphite plate, which reduces the brittleness of hard graphite bipolar plate while greatly lowers our manufacturing cost, (ii) laser welding and binding technology of hydrogen fuel cell stacks which enables rapid assembly of hydrogen fuel cell stacks and greatly improves the efficiency of the assembly process, and (iii) the modular and customized design of the hydrogen fuel cell systems to achieve the compatibility of wide power range and improve the development and production capacity of hydrogen fuel cell systems.

SALES AND MARKETING

During the Track Record Period, we primarily focused our marketing and sales efforts on our hydrogen fuel cell stacks and hydrogen fuel cell systems products. As of 31 December 2022, we had a sales and marketing team of 101 personnel, focusing on business development, customer service and industry coverage. We maintain respective sales teams responsible for our sales efforts in different areas nationwide in accordance with our sales strategy.

CUSTOMERS AND SUPPLIERS

Our customers mainly comprise hydrogen fuel cell systems manufacturers and hydrogen fuel cell vehicles manufacturers located in the PRC. For the years ended 31 December 2020, 2021 and 2022, the revenue attributed to our largest customer in each year during the Track Record Period amounted to RMB111.7 million, RMB244.9 million and RMB256.4 million, respectively, accounted for 49.2%, 53.6% and 34.3% of our revenue for the same years, respectively, and revenue attributed to our five largest customers in each year during the Track Record Period amounted to RMB217.2 million, RMB402.4 million and RMB634.5 million, respectively, accounted for 95.7%, 88.1% and 84.9% of our revenue for the same years, respectively.

As advised by Frost & Sullivan, the hydrogen fuel cell system and the hydrogen fuel cell vehicle industries are still at a stage of early development where they are relatively small in scale and high in market concentration. Therefore, during the Track Record Period, most of our revenue were derived from several major customers. For more details, please refer to “Business – Customers”.

For the years ended 31 December 2020, 2021 and 2022, purchases from our largest supplier in each year during the Track Record Period amounted to RMB96.1 million, RMB177.1 million and RMB119.9 million, respectively, accounted for 39.6%, 37.0% and 20.8% of our total amount of purchases, respectively; and purchases from our five largest suppliers in each year during the Track Record Period amounted to RMB175.5 million, RMB293.2 million and RMB305.9 million, respectively, accounted for 72.3%, 61.2% and 53.1% of our total amount of purchases for the same years, respectively. Our five largest suppliers during the Track Record Period are primarily raw materials, key components and

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hydrogen fuel suppliers located in the PRC, Canada, and the U.S. We have shifted most of our key raw materials and components procurement from international suppliers to domestic suppliers in order to (i) lower the unit cost of our products, (ii) maintain better overall control over the logistics process, and (iii) ensure a more stable supply. For more details, please refer to “Business – Raw Materials and Suppliers – Suppliers”.

During the Track Record Period, an associated company of us was both our top five suppliers and top five customers. For more information, please refer to “Business – Customers – Overlapping of Major Customers and Suppliers”. Save as disclosed above, during the Track Record Period, no other major customer was also our major supplier, or vice versa.

PRICING POLICY

We generally price our products taking into consideration factors such as the prevailing market prices and conditions, costs of production, years of business relationship, government awards policy and expected margins.

INDUSTRY LANDSCAPE OF HYDROGEN ENERGY MARKET IN CHINA

The issues of climate change and environmental pollution have gradually become a common concern of the international community. As an important measure to tackle climate change and accelerate energy transformation, more and more economies attach great importance to the development of the hydrogen energy industry and regard it as a part of the energy development strategy. Hydrogen energy has become an important choice for accelerating energy transformation and upgrading as well as cultivating new economic growth drivers. In 2022, China released its first Medium and Long-term Development Plan for Hydrogen Industry (2021-2035) (氢能產業發展中長期規劃(2021-2035年)), which provided the clear development orientation and goals of the hydrogen energy industry, and for the first time made it clear that hydrogen energy is an important part of the future national energy system. It is expected that hydrogen energy will grow into one of the key parts of the global energy transformation and show a high growth potential.

Promoted by the implementation of favorable government policies, the demand for hydrogen energy will be further stimulated, and the application of hydrogen energy will be continuously broadened, in particular for hydrogen fuel cells. As a result, the shipment volume of hydrogen fuel cell systems is expected to reach 25,027.0MW by the end of 2027, representing a CAGR of 99.2% from 2023. As hydrogen fuel cell vehicle industry primarily applies the usage of hydrogen fuel cells, the hydrogen fuel cell vehicle industry in China is also expected to enter a fast-developing stage in the coming years, driven by the establishment of the demonstrative city clusters, increasing awareness of hydrogen fuel cell vehicles as well as further upgrades of the relevant technologies. It is estimated that the number of hydrogen fuel cell vehicles in China will exceed one million in 2030. For more information on the industry landscape of the hydrogen energy market in China, please refer to “Industry Overview – Overview of Hydrogen Energy Industry – Industry Landscape of the Hydrogen Energy Market in China” in this document.

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SUMMARY OF HISTORICAL FINANCIAL INFORMATION

The following tables set forth summary financial data from our consolidated financial information as of the dates indicated, extracted from the Accountant’s Report set out in Appendix I to this document. The summary consolidated financial data set forth below should be read together with, and is qualified in its entirety by reference to, the consolidated financial statements in this document, including the related notes. Our consolidated financial information was prepared in accordance with IFRS.

Selected Consolidated Statements of Profit or Loss

	Year ended 31 December		
	2020	2021	2022
	RMB'000	RMB'000	RMB'000
Revenue	226,883	457,138	748,475
Cost of sales	(218,901)	(329,610)	(589,672)
Gross profit	7,982	127,528	158,803
Other income	7,490	7,026	14,424
Other losses – net	(213)	(3,526)	(19,506)
Net impairment losses on financial assets and contract assets	(19,984)	(92,402)	(98,144)
Selling expenses	(8,007)	(22,995)	(49,279)
Research and development expenses	(35,945)	(72,192)	(91,815)
Administrative expenses	(150,283)	(616,251)	(181,385)
Operating loss	(198,960)	(672,812)	(266,902)
Finance costs – net	(24,349)	(15,529)	(6,791)
Share of losses of joint ventures and associates accounted for using the equity method	(723)	(6,606)	(19,986)
Loss before income tax	(224,032)	(694,947)	(293,679)
Income tax credit/(expense)	2,673	(8,096)	13,452
Loss for the year	(221,359)	(703,043)	(280,227)
(Loss)/income for the year attributable to:			
Owners of the Company	(214,826)	(703,076)	(273,416)
Non-controlling interests	(6,533)	33	(6,811)
	(221,359)	(703,043)	(280,227)

SUMMARY

Non-IFRS Measure

To supplement our consolidated financial statements, which are presented in accordance with IFRS, we also use adjusted loss (non-IFRS measure) as an additional non-IFRS measure, which is not required by, or presented in accordance with, IFRS.

We believe the presentation of this non-IFRS measure when shown in conjunction with the corresponding IFRS measures provides useful information to investors and management in facilitating a comparison of our operating performance from year to year by eliminating the impact of non-cash items.

Share-based payments was non-cash in nature, representing (i) the Share Incentive Scheme through which we offered share awards to our employees, and (ii) equity transactions of equity interests in our Single Largest Shareholder. Please refer to Note 29 of the Accountant’s Report as Appendix I to this document for more information:

	Year ended 31 December		
	2020	2021	2022
	RMB’000	RMB’000	RMB’000
Reconciliation of net loss to adjusted net loss (non-IFRS measure):			
Loss for the year	(221,359)	(703,043)	(280,227)
Add:			
– Share-based payments	118,289	546,043	54,316
Adjusted net loss (non-IFRS measure)	<u>(103,070)</u>	<u>(157,000)</u>	<u>(225,911)</u>

We recorded net losses for the years ended 31 December 2020, 2021 and 2022 primarily due to (i) share-based payments we recorded for the years ended 31 December 2020 and 2021 from equity transactions of equity interests in our Single Largest Shareholder and Share Incentive Scheme, (ii) impairment loss on intangible asset related to 9SSL fuel cell stacks license and impairment loss on inventories, (iii) the impairment loss of our trade receivables, and (iv) the continuous expansion of our business scale during the Track Record Period and the resulting increase in the relevant expenses.

For more information, please refer to “Financial Information – Description of Key Statement of Profit or Loss Items”.

SUMMARY

Selected Consolidated Statements of Financial Position

	As of 31 December			As of
	2020	2021	2022	30 April
	RMB'000	RMB'000	RMB'000	2023
				RMB'000
				(unaudited)
Total current assets	1,043,656	1,827,791	2,371,352	2,453,900
Total current liabilities	475,665	491,029	982,765	1,085,009
Net current assets	567,991	1,336,762	1,388,587	1,368,891
Total non-current assets	325,316	560,052	1,048,560	1,073,743
Total assets less current liabilities	893,307	1,896,814	2,437,147	2,442,634
Total non-current liabilities	252,323	377,978	138,149	195,509
Net assets	640,984	1,518,836	2,298,998	2,247,125
Equity attributable to				
owners of the Company	638,885	1,516,704	2,303,677	2,252,773
Non-controlling interests	2,099	2,132	(4,679)	(5,648)

Our net current assets increased throughout the Track Record Period. In particular, our net current assets increased by 135.3% from RMB568.0 million as of 31 December 2020 to RMB1,336.8 million as of 31 December 2021 mainly attributable to an increase in trade and bills receivables as our sales increased in 2021 and an increase in cash and cash equivalents due to capital injection from our Shareholders. Our net current assets remained relatively stable from as of 31 December 2021 to as of 30 April 2023.

We recorded net assets of RMB641.0 million, RMB1,518.8 million and RMB2,299.0 million as of 31 December 2020, 2021 and 2022. Our net assets increased from RMB641.0 million as of 31 December 2020 to RMB1,518.8 million as of 31 December 2021 primarily due to (i) capital injection of RMB1,049.9 million and (ii) share-based payments of RMB546.0 million, which was partially offset by loss for the year of RMB703.0 million. Our net assets increased from RMB1,518.8 million as of 31 December 2021 to RMB2,299.0 million as of 31 December 2022 mainly due to our issue of new shares of RMB1,006.4 million, which was partially offset by loss for the year of RMB280.2 million. Our net assets remained relatively stable from RMB2,299.0 million as of 31 December 2022 to RMB2,247.1 million as of 30 April 2023.

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Selected Consolidated Statements of Cash Flow

	Year ended 31 December		
	2020	2021	2022
	RMB'000	RMB'000	RMB'000
Net cash used in operating activities	(86,631)	(560,708)	(261,271)
Net cash used in investing activities	(65,779)	(231,624)	(446,603)
Net cash generated from financing activities	536,023	1,035,827	713,894
Net increase in cash and cash equivalents	383,613	243,495	6,020
Cash and cash equivalents at the beginning of the year	85,033	468,384	711,819
Effect of foreign exchange rate changes	(262)	(60)	344
Cash and cash equivalents at the end of the year	468,384	711,819	718,183

We recorded net cash used in operating activities of RMB86.6 million, RMB560.7 million and RMB261.3 million for the years ended 31 December 2020, 2021 and 2022, respectively, as we incurred significant operating expenses to support our business development, primarily included the purchase of raw materials for our productions and the increase in employee benefit expenses. For details, please refer to “Financial Information – Liquidity and Capital Resources – Cash Flows” and “Risk Factors – Risks Relating to Our Industry and Business – We recorded net losses in the past and had negative cash flows from operating activities, all of which may continue if we may not be able to implement our business plans successfully in the future” in this document.

Key Financial Ratios

The following table sets forth certain of our key financial ratios as of the dates or for the periods indicated:

	As of or for the year ended		
	2020	31 December 2021	2022
Gross profit margin ⁽¹⁾	3.5%	27.9%	21.2%
Current ratio ⁽²⁾	2.2	3.7	2.4
Quick ratio ⁽³⁾	1.7	2.9	2.0
Gearing ratio ⁽⁴⁾	0.9	0.4	0.1

Notes:

- (1) Calculated by dividing gross profit by revenue for the year multiplied by 100%.
- (2) Calculated by dividing total current assets by total current liabilities as of the end of the year.
- (3) Calculated by dividing total current assets minus inventory by total current liabilities as of the end of the year.
- (4) Calculated by dividing total borrowings by total equity as of the end of the year.

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SUSTAINABLE OPERATION

To pave the way for long-term success in this newly developed and fast growing market, we have been focusing on product development, research and development, and growth in our customer base, rather than seeking short-term financial return or profitability. Due to the successful implementation of our growth strategies, we have experienced a robust business growth during the Track Record Period. The number of our customers grew from 38 for the year ended 31 December 2020 to 57 for the year ended 31 December 2021 and further increased to 74 for the year ended 31 December 2022. Despite the growth of our customer base, we make great efforts to retain our existing customers. For instance, substantially all of the major customers for our self-developed hydrogen fuel cell products in 2021 remained as our customers in 2022. Our revenue increased (i) by 101.5% from RMB226.9 million for the year ended 31 December 2020 to RMB457.1 million for the year ended 31 December 2021, and (ii) by 63.7% from RMB457.1 million for the year ended 31 December 2021 to RMB748.5 million for the year ended 31 December 2022. Our overall gross profit margin increased from 3.5% for the year ended 31 December 2020 to 27.9% for the year ended 31 December 2021 mainly due to the absence of an impairment loss of RMB57.4 million on our 9SSL fuel cell stacks license in 2020. Our gross profit margin decreased from 27.9% for the year ended 31 December 2021 to 21.2% for the year ended 31 December 2022 mainly due to (i) the decrease of gross profit margin of our hydrogen fuel cell systems, which is caused by the lower profit margin of the additional components (i.e. hydrogen storage systems and batteries) procured from third parties that were sold together with our hydrogen fuel cell systems in order to provide a more comprehensive and ready-for-use hydrogen fuel cell solution, and (ii) the increase in impairment loss of our inventories and licences.

While our business expanded, our gross profit margin of sales of goods and services remained at a relatively stable level at 32.9%, 33.0% and 27.0% for the years ended 31 December 2020, 2021 and 2022, respectively, which we successfully achieved through measures including shifting the procurement of key raw materials and components to domestic suppliers and incorporating our self-developed hydrogen fuel cell stacks into our hydrogen fuel cell systems. Please refer to “Financial Information – Description of Key Statement of Profit or Loss Items – Gross Profit and Gross Profit Margin” for more information.

In the future, we aim to maintain sustainability and achieve profitability through: (i) business expansion and revenue growth; (ii) ability to manage costs and enhance operating leverage; and (iii) improving cash flow and ability to raise funds. With our improved profitability, we also expect our cash flow to improve concurrently.

Business Expansion and Revenue Growth

As a leading provider of hydrogen fuel cell stacks and hydrogen fuel cell systems in China, we are well-positioned to generate sustainable revenue growth in the future. Our revenue growth will be driven by the following factors:

- *improving product performance and market competitiveness*: we plan to continue our research and development efforts and continue to develop high efficiency and high power hydrogen fuel cell stacks and hydrogen fuel cell systems to increase our competitiveness in the market and confidence from our customers. For instance, from our SynStack GI to SynStack GIII, we greatly increased our hydrogen fuel cell

SUMMARY

stack’s power range to over 200kW and improved its power density to 4.5kW/L, in addition to upgrading its freeze-start temperature and overall stability to operate in extreme weather conditions and harsh environments, representing a substantial improvement in our hydrogen fuel cell stack technology. Going forward, we plan to further increase our product competitiveness and create more value for customers through continuous technological development;

- *expanding the applications of our hydrogen fuel cell products*: we will further expand our product applications in the diversified markets amid the current and future hydrogen industry market opportunities to set ourselves apart from our competitors. For the transit applications, we will closely cooperate with our existing downstream customers and partners to develop new models and products suitable to the evolving hydrogen fuel cell vehicle industry in the PRC while reaching out to potential customers for new collaboration opportunities. In addition to transit applications, we expect to expand our reach in rail transit, stationary power generation, and hydrogen storage; and
- *expanding our geographical presence and production capacity*: since August 2021, the PRC government has approved five hydrogen fuel cell vehicle demonstrative city clusters, including Beijing, Shanghai, Guangdong Province, Hebei Province, and Henan Province. Other cities also designed hydrogen fuel cell development plans based on their own resources and unique advantages. In line with the favorable government policies and to achieve economies of scale, in recent years, we have been making forward-looking and strategic plans to expand our geographical presence, including (i) Jiaxing, Zhejiang Province, (ii) Guangzhou, Guangdong Province, (iii) Chongqing, (iv) Lin-Gang Special Area of Shanghai, (v) Ordos, Inner Mongolia, and (vi) Puyang, Henan Province. Through expanding our geographical presence, we also plan to strengthen our supply and domestic customer service abilities for our customers located in different regions nationwide.

Ability to Manage Costs and Enhance Operating Leverage

During the Track Record Period, we incurred significant operating expenses, including administrative expenses, research and development expenses and selling expenses, to support our business expansion, develop new products and enhance our brand recognition. To further improve our operating leverage, improve our production efficiency and lower our average production costs we plan to carry out the following:

- *supply management*: we plan to continue to leverage our success in the domestic procurement of raw materials and components to further drive our costs down. During the Track Record Period, our self-developed SynStack G series hydrogen fuel cell stack has achieved domestic procurement and production with respect to its core components, including MEAs and graphite bipolar plates, which reduced the production costs of the hydrogen fuel cell stacks. For instance, the price of the graphite sheets of our graphite bipolar plates used for the production of SynStack G series hydrogen fuel cell stacks was lowered by approximately 49% after we switched to domestic suppliers from international suppliers. With the reduced cost in production, our SynStack G series hydrogen fuel cell stacks enjoyed a higher gross profit margin than the 9SSL fuel cell stacks during the Track Record Period.

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For the years ended 31 December 2020, 2021 and 2022, the gross profit margin of 9SSL hydrogen fuel cell stacks was 32.9%, 7.0% and 4.2%, respectively, while the gross profit margin of our SynStack G series hydrogen fuel cell stacks was 40.6%, 29.3% and 26.6% for the same years, respectively;

- *manufacturing improvement*: we plan to upgrade our production process and production equipment in order to increase our production efficiency and decrease our average production costs. For instance, (i) on the one hand, we plan to acquire and develop upgraded equipment and software systems to optimize our production process and to boost our overall production efficiency; and (ii) on the other hand, we plan to implement automated production processes, such as stack assembly robots, production line robots and automated fuel cell system assembly line, in our Ordos, Inner Mongolia, Chongqing, Puyang, Henan Province and Jiaying, Zhejiang Province production facilities in order to reduce the number of workers needed on our production lines and the employee benefit expenses as a percentage of our total production costs in addition to improve our production precision for overall quality improvement. Approximately [REDACTED]% of our total estimated [REDACTED] from the [REDACTED] is intended to be used to expand the production capabilities of our hydrogen fuel cell stacks and hydrogen fuel cell systems; and
- *product upgrade*: technology iterations are also key to lowering costs. Leveraging our ability to self-develop hydrogen fuel cell systems, we have successfully increased the level of integration for our hydrogen fuel cell systems during the Track Record Period, which in turn reduced the number of components needed and the overall production costs. For instance, when we launched the new SynRoad H240 hydrogen fuel cell system, we reduced the number of connectors and the amount of wires between the hydrogen fuel cell stack and the DC-to-DC converter by 34.8%, in addition to reducing the number of silicon tubes that connects various components within the hydrogen fuel cell system by 36.8%, compared with the previous model. For more information on our ability to manage costs and enhance operating leverage, please refer to “Business – Sustainable Operation” in this document.

Improving Cash Flow and Ability to Raise Funds

To mitigate risks related to our net operating cash outflows, we expect to improve our cash flow positions by continuously enhancing working capital efficiency. We believe our working capital position will be improved and we possess the ability to raise funds when necessary, mainly taking into consideration of (i) our increased revenue and improved operating leverage, (ii) our enhanced collection efforts and credit assessment, (iii) stronger supply management, (iv) efficient inventory management, and (v) financial resources available to us. For more information on our plan to improve cash flow and our ability to raise funds, please refer to “Business – Sustainable Operation” in this document.

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SUMMARY OF MATERIAL RISK FACTORS

Our business and the [REDACTED] involve certain risks, which are set out in the section headed “Risk Factors” in this document. You should read that section in its entirety carefully before making an investment decision in the [REDACTED]. Some of the major risks we face include:

- (i) **changes to or eliminations of the PRC government policies and regulatory framework supporting the hydrogen energy industry and the hydrogen fuel cell vehicle industry could have a material impact on our industry and our business operation;**
- (ii) **the demand for our products depends on the trend and development of the hydrogen fuel cell vehicle industry in China and the availability of other types of new energy products. There are uncertainties in future market demand and we cannot assure that we will continue to obtain sufficient purchase orders in the future;**
- (iii) we are in a new industry where emerging technologies used in hydrogen fuel cell systems may not be mature. Any major product defects, malfunctions or negative news concerning the hydrogen fuel cell vehicle industry may damage our reputation and adversely affect our business, financial condition and results of operations;
- (iv) the industry we operate in is characterized by rapid technological changes and advancements. We may not be able to maintain our revenue growth and any delay by us in bringing new and competitive products to the market could adversely affect our financial performance;
- (v) we recorded net losses in the past and had negative cash flows from operating activities, all of which may continue if we may not be able to implement our business plans successfully in the future;
- (vi) we are exposed to credit risk of our customers and failure to collect our trade and bills receivables in a timely manner may affect our financial condition and results of operations; and
- (vii) we depend on certain major customers for the majority of our revenue and the loss of any of these customers could adversely affect our business, financial condition, results of operations and cash flows.

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RELATIONSHIP WITH OUR SINGLE LARGEST SHAREHOLDER

As at the Latest Practicable Date, Hongyun Hydrogen Energy held approximately 18.24% of our issued share capital. Hongyun Hydrogen Energy is held as to 99.99% and 0.01% equity interest by Huahui Technology (of which Mr. Chen is its general partner) and Mr. Chen respectively. Immediately upon completion of the [REDACTED] (assuming the [REDACTED] is not exercised and without taking into account any Shares to be issued under the Pre-[REDACTED] Share Incentive Scheme), Hongyun Hydrogen Energy will own approximately [REDACTED]% of our issued share capital and will continue to be our single largest Shareholder upon [REDACTED].

Throughout the Track Record Period, Hongyun Hydrogen Energy is an investment holding company which has been under Mr. Chen’s control and it is expected that such control will continue after the [REDACTED].

See “History, Development and Corporate Structure” and “Relationship with Hongyun Hydrogen Energy” for details.

[REDACTED] STATISTICS

The statistics in the following table are based on the assumption that: (i) the [REDACTED] is completed and [REDACTED] H Shares are issued pursuant to the [REDACTED]; (ii) the [REDACTED] is not exercised; and (iii) without taking into account any Shares to be issued pursuant to the Pre-[REDACTED] Share Incentive Scheme.

	Based on an [REDACTED] of HK\$[REDACTED] per [REDACTED]	Based on an [REDACTED] of HK\$[REDACTED] per [REDACTED]
Market capitalization of our Shares ⁽¹⁾	HK\$[REDACTED]	HK\$[REDACTED]
Market capitalization of our H Shares	HK\$[REDACTED]	HK\$[REDACTED]
Unaudited [REDACTED] adjusted net tangible assets per share ⁽²⁾	HK\$[REDACTED]	HK\$[REDACTED]

Notes:

- (1) The calculation of market capitalization of our Shares is based on [REDACTED] Shares expected to be in issue immediately upon completion of the [REDACTED], assuming the [REDACTED] is not exercised and without taking into account any Shares to be issued under the Pre-[REDACTED] Share Incentive Scheme.
- (2) The unaudited [REDACTED] adjusted net tangible assets per share is arrived at after the adjustment referred to in “Appendix II – Unaudited [REDACTED] Financial Information”.

SUMMARY

PRE-[REDACTED] INVESTORS

We completed several rounds of Pre-[REDACTED] Investments since our establishment. Our Pre-[REDACTED] Investors will be restricted from trading for 12 months from the [REDACTED]. For further details regarding the identities of the Pre-[REDACTED] Investors, key terms of these Pre-[REDACTED] Investments and the Pre-[REDACTED] Investors’ rights, see “History, Development and Corporate Structure – Pre-[REDACTED] Investments.”

[REDACTED]

We estimate the [REDACTED] of the [REDACTED] which we will receive, assuming an [REDACTED] of HK\$[REDACTED] per [REDACTED] (being the mid-point of the [REDACTED] stated in this document), will be approximately HK\$[REDACTED], after deduction of [REDACTED] fees and commissions and other estimated expenses in connection with the [REDACTED] assuming the [REDACTED] is not exercised and without taking into account any Shares to be issued under the Pre-[REDACTED] Share Incentive Scheme. We intend to use the [REDACTED] of the [REDACTED] for the following purposes:

- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], is intended to be used to expand the production capabilities of our hydrogen fuel cell stacks and hydrogen fuel cell systems.
- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], is intended to be used to fund the research and development of hydrogen fuel cell stacks, hydrogen fuel cell systems, graphite bipolar plates and hydrogen production equipment.
- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], is intended to be used to fund the investment in, the potential acquisition of, or the alliance with companies in our upstream industry in order to consolidate and strengthen our supply chain.
- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], is intended to be used for the (i) joint development of downstream transit and stationary applications of our product portfolios in order to increase the downstream demand for our products and (ii) further development of domestic applications and the increase of local demands for our products by establishing joint ventures with the local governments and companies from both upstream and downstream participants of our industry.
- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], is intended to be used for team building, talents recruitment and training, as well as enhanced compensation and incentives to key personnel to support our growth and expansion.

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- Approximately HK\$[REDACTED], or approximately [REDACTED]% of our total estimated [REDACTED], will be used for working capital and other general corporate purposes.

For more details, please refer to “Future Plans and [REDACTED]”.

LEGAL PROCEEDINGS AND COMPLIANCE

During the Track Record Period, we failed to make full contributions to social insurance and housing provident fund for certain of our employees in accordance with the relevant PRC laws and regulations. Our Directors are of the opinion that our failure to make full contribution to social insurance and housing provident funds for certain of our employees will not have a material adverse impact on our business operations or financial condition as a whole. As of the Latest Practicable Date, we were in the process of adjusting the contribution base of social insurance and housing provident funds for our employees and we have implemented internal control improvement measures. During the Track Record Period and up to the Latest Practicable Date, there had been no legal, arbitration or administrative proceedings pending or threatened against us or any of our Directors which could have a material adverse effect on our financial condition or results of operations. For more information, please refer to “Business – Legal Proceedings and Compliance” in this document.

RECENT DEVELOPMENTS

We expect to record a substantial amount of net loss and operating cash outflow in 2023 as we continue to increase investment in research and development activities, incur employee-related expenses to recruit and retain talents and expand our production scales. However, we intend to adopt certain measures to maintain sustainability and continue to grow our business to achieve profitability. For more information, please see “Business – Sustainable Operation” in this document.

Our Directors confirm that, up to the date of this document, there has not been any material adverse change in our financial or trading position or prospects since 31 December 2022, and there has not been any event since 31 December 2022 which would materially affect the information shown in the Accountant’s Report set out in Appendix I to this document.

DIVIDEND

No dividends have been paid or declared by our Company during the Track Record Period. Our Board may declare dividends in the future after taking into account our results of operations, financial condition, cash requirements and availability, legal requirements and other factors as it may deem relevant at such time. Our dividend distribution record in the past may not be used as a reference or basis to determine the level of dividends that may be declared or paid by us in the future. PRC laws require that dividends be paid by PRC companies only out of the profit for the year calculated according to PRC accounting principles. PRC laws also require a PRC company to set aside at least 10% of its after-tax profits, if any, to fund its statutory reserves, which are not available for distribution as cash dividends. As advised by our

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PRC Legal Advisers, according to the PRC Company Law, each of the PRC subsidiaries of the Company can pay dividend from the after-tax profit once (i) it sets aside as statutory reserves at least 10% of its after-tax profit until the cumulative amount of its reserves reaches 50% of its registered capital, and (ii) any losses of the PRC subsidiaries from prior fiscal years have been offset. Based on the above, and considering that we incurred accumulated losses as of 31 December 2022, we are not able to pay any dividend before we have made up for such accumulated losses. For more information, please refer to “Financial Information – Dividend” in this document.

[REDACTED] EXPENSES

The estimated total [REDACTED] expenses (based on the mid-point of our indicative [REDACTED] for the [REDACTED] and assuming that the [REDACTED] is not exercised and without taking into account any Shares to be issued under the Pre-[REDACTED] Share Incentive Scheme) for the [REDACTED], which represents approximately [REDACTED]% of the [REDACTED], are approximately RMB[REDACTED] of which, (i) RMB[REDACTED] is [REDACTED]-related expenses (including but not limited to commissions and fees); and (ii) RMB[REDACTED] is non-[REDACTED]-related expenses, including (a) RMB[REDACTED] of fees and expenses of legal advisers and reporting accountant; and (b) RMB [REDACTED] of other fees and expenses. During the Track Record Period, we incurred [REDACTED] expenses of RMB[REDACTED] of which RMB[REDACTED] was accounted for in the consolidated statement of profit or loss for the year ended 31 December 2022 and RMB[REDACTED] was capitalized as deferred expenses in the consolidated statement of financial position as of 31 December 2022 and is expected to be accounted for as a reduction in equity upon the completion of the [REDACTED]. We expect to incur additional [REDACTED] expenses of approximately RMB[REDACTED], of which approximately RMB[REDACTED] is expected to be recognised as administrative expenses and approximately RMB[REDACTED] is expected to be recognised as a deduction in equity directly. The [REDACTED] expenses above are the latest practicable estimate for reference only, and the actual amount may differ from this estimate.

CERTAIN WAIVER FROM COMPLIANCE WITH THE LISTING RULES

We have applied to the Stock Exchange for, and the Stock Exchange [has granted] us, a waiver from strict compliance with Rule 8.08(1) of the Listing Rules so that the minimum public float of the Company will be the highest of (i) 16% of the Company’s total issued share capital; (b) such percentage of H Shares to be held by the public after completion of the [REDACTED] (assuming that the [REDACTED] is not exercised); and (c) such percentage of H Shares held by the public after the exercise of the [REDACTED]. For more details, see “Waivers from Strict Compliance with the Listing Rules – Waiver in relation to Public Float Requirements” in this document.

IMPACT OF COVID-19 ON OUR OPERATIONS AND FINANCIAL PERFORMANCE

In response to the spread of the COVID-19 virus, including variants and mutant strains, such as Delta and Omicron variants, the PRC government implemented numerous measures, including travel bans and restrictions, quarantines, stay-at-home orders and shutdowns. We took a series of

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measures in response to the outbreak to protect our employees in compliance with governments’ measures, including, temporary closure of our offices, remote working arrangements for our employees, and travel restrictions or suspension. While our manufacturing facilities maintained normal operations since the outbreak of the COVID-19 pandemic, the outbreak of COVID-19 had the following impact on our business, results of operations, and financial condition during the Track Record Period: (i) certain of our raw material suppliers has suspended operation temporarily as they were located in areas affected by COVID-19, (ii) we experienced logistics delays as a result of the pandemic and (iii) certain of our construction in progress was delayed. In particular, with respect to the effect on supplies, the lock-downs in certain cities in China, as part of the COVID-19 mandates, have slightly increased the logistics costs for the industry, and temporarily increased the cost of key raw materials of hydrogen fuel cell stacks and hydrogen fuel cell systems by less than 10.0%, according to Frost & Sullivan.

Specifically, in 2020, although the outbreak of COVID-19 had certain negative impact on the procurement, production and logistics of our customers’ industry, such as the hydrogen fuel cell vehicle industry, and resulted in a delay of the downstream demand for the hydrogen fuel cell stacks and hydrogen fuel cell systems, participants in our industry were making continuous efforts to jointly support the establishment and applications of demonstrative city clusters in order to further promote the commercialization of hydrogen fuel cell products. With the issuance of the “awards in lieu of subsidy (以獎代補)” supportive policy in the third quarter of 2020, the market demand increased and the increase continued into 2021 and 2022.

In December 2022, the PRC government eased the restrictions previously imposed to control the COVID-19 pandemic. As a result, regional lockdowns, quarantine requirements and inter-region travel restrictions have been gradually lifted. Given the recent relaxation of the strict pandemic control measures, we do not expect any further material adverse effects on our overall long-term business and financial performance. However, we cannot be entirely certain when the COVID-19 pandemic will be fully contained and its impact completely alleviated. There remain uncertainties surrounding the COVID-19 outbreak and its further development as a global pandemic, considering the difficult global situation. We are closely monitoring the development of the COVID-19 pandemic and continuously evaluating any potential impact on our business operations.

APPLICATION FOR [REDACTED] UNDER RULE 8.05(3) OF THE LISTING RULES ON THE STOCK EXCHANGE

We have applied to the Stock Exchange for the [REDACTED] of, and permission to deal in, our H Shares to be issued pursuant to the Rule 8.05(3) of the Listing Rules, on the basis that, among other things, we satisfy the market capitalization/revenue test under Rule 8.05(3) of the Listing Rules with reference to (i) our revenue in the financial year ended 31 December 2022, being approximately RMB748.5 million (equivalent to approximately HK\$843.9 million), which is over HK\$500 million, and (ii) our expected market capitalization at the time of [REDACTED], which, based on the low end of the [REDACTED] range, exceeding HK\$[REDACTED].