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GEM Co., Ltd

Announcement on the Progress of the Construction of the Indonesia

QMB Nickel Resource Project

The Company and all members of the Company's Board of Directors confirm that all information disclosed herein is true, accurate, and complete, with no false or misleading statements or material omissions.

1. Project background and basic situation

The Indonesia QMB Nickel Resource Project refers to PT.QMB NEW ENERGY MATERIALS Co., Ltd. (hereinafter referred to as "QMB"), which was jointly established by GEM Co., Ltd., IMIP (a subsidiary company of Tsingshan Holding Group), Hongkong Brunp Recycling Technology (a subsidiary of CATL), Japan Hanwa and other joint founders, with a total investment of 998 million US dollars (registered capital of 299.4 million US dollars), on January 8, 2019 in Qingshan Park, China-India Economic and Trade Cooperation Zone, Morowali County, Central Sulawesi, Indonesia. It covers an area of one hectare, with an annual output of 50,000 tons of nickel metal and 4,000 tons of metal cobalt, the specific products are 142,000 tons of nickel metal), 135,000 tons

of nickel sulfate Crystals (NiSO4·6H2O) (equivalent to 30,000 tons of nickel metal), 20,000 tons of cobalt sulfate crystals (equivalent to 4,000 tons of cobalt cobalt), 31,000 tons of manganese sulfate crystals (MnSO4·H2O), and by-product 250,000 tons of ferrochromium mine.

The project design adopts whole process green design, using digital and intelligent technology, with the concept of "putting in laterite nickel ore and refining battery materials", to open up the channel from low-grade laterite nickel ore to new energy raw materials, and promote Indonesia entry into the era of new energy electrification.

The project adopts the independently developed high-pressure leaching technology as the basis, and takes the low-grade laterite nickel ore containing 1.0-1.2% nickel as the raw material to directly produce high-purity battery grade nickel sulfate, cobalt sulfate and manganese sulfate crystals, so as to completely recover the nickel, cobalt and manganese from the mine. The raw material used in the project is low-grade laterite nickel ore containing 1.0-1.2% nickel. This low-grade laterite nickel ore is not used in the current ferronickel pyrometallurgical process and high matte pyrometallurgical process, but also a resource discarded by the current Indonesian pyrometallurgical process. Therefore, this project not only makes efficient use of Indonesia's low-grade nickel resources, saves Indonesia's nickel resources, but also completely recovers cobalt and manganese. Compared with the current popular pyrometallurgical process, it has good carbon reduction effect and sustainable laterite nickel resource supply ability.

The original plan of the project was to complete the engineering design and basic preparation in 2019 and the construction from 2020 to 2021. In 2020, due to the impact of the world epidemic, the construction of the QMB project was suspended from March to December 2020, resulting in a 8 months delay of the project construction schedule.

The project is divided into two phases. In the first phase, infrastructure construction will be completed and will produce 30,000 tons of nickel intermediate products (MHP). In the second phase, 20,000 tons of nickel intermediate capacity will be constructed, and the technological processes for battery grade nickel sulfate, cobalt sulfate and manganese sulfate will be completed.

On March 23, 2021, GEM Hong Kong International Logistics Co., Ltd., a wholly-owned subsidiary of the company, signed an equity transfer agreement with Hong Kong Bangpu Recycling Technology Co., Ltd., Guangdong Bangpu Recycling Technology Co., Ltd. and QMB. At the same time, GEM and its wholly-owned subsidiary Jingmen GEM New Materials Co., Ltd. and GEM Hong Kong International Logistics Co., Ltd. signed an equity transfer agreement with Newstride Limited and New Horizon International Holding Limited. By signing the above equity transfer agreements, the company's subsidiaries directly and indirectly hold 72% of the shares of QMB (hereinafter referred to as "equity transfer 1"). Before the equity transfer 1, the equity structure of QMB was as follows:

Shareholder	Shareholding ratio
Jingmen GEM New Materials Co., Ltd.	36%
Hongkong Brunp Recycling Technology	25%
New Horizon International Holding Limited	21%
IMIP	10%
Japan Hanwa Corp	8%
Total	100%

After the equity transfer 1, the equity structure of QMB was as follows:

Shareholder	Shareholding ratio
Jingmen GEM New Materials Co., Ltd.	36%
New Horizon International Holding Limited	21%
GEM Hong Kong International Logistics Co., Ltd.	15%
Hongkong Brunp Recycling Technology	10%
IMIP	10%
Japan Hanwa Corp	8%
Total	100%

After the equity transfer 1, the affiliated company controlled by GEM holds 72% of the shares in QMB.

On March 28, 2022, GEM Hong Kong International Logistics Co., Ltd., a wholly-owned subsidiary of the company, signed an equity transfer agreement with ECOPRO GLOBAL Co., Ltd., a subsidiary of ECOPRO Co., Ltd. in South Korea, and ECOPRO GLOBAL Co., Ltd. will receive 9% equity of QMB from GEM Hong Kong International Logistics Co., Ltd. (hereinafter referred to as "equity transfer 2"), and the equity transfer procedures are in progress. After the equity transfer 2, the

equity structure	of QMB is as	follows:
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Shareholder	Shareholding ratio
Jingmen GEM New Materials Co., Ltd.	36%
New Horizon International Holding Limited	21%
GEM Hong Kong International Logistics Co., Ltd.	6%
Hongkong Brunp Recycling Technology	10%
IMIP	10%
ECOPRO GLOBAL Co., Ltd.	9%
Japan Hanwa Corp	8%
Total	100%

After the equity transfer 2, the affiliated enterprises controlled by GEM hold 63% of the shares in QMB. Currently, the procedures for equity transfer 2 are being processed.

2. Progress of construction projects

1) construction progress of phase I

In March 2021, the project construction was resumed leading by GEM. GEM have successively sent several batches of engineering and technical staff to Indonesia to participate in the project construction. In particular, in March 2022, GEM organized a number of commandos to launch the tough battle of Indonesian project construction. 1,000 GEM engineering and technical staff went oversea, and worked together with dozens of outsourcing enterprises, promoting the project construction into the rapid construction stage

The capacity design of 30,000 tons of nickel metal in the first phase of the project is composed of three 560 m³ high-pressure leaching reaction systems, with the cooperation of a 100 m³ large-scale engineering test center.

The specific progress of phase I project construction is as follow:

- i. Construction: the first phase of QMB Indonesia nickel resource project (30,000 tons of nickel / year, produced as nickel intermediate products) had been successfully completed by the end of June 2022.
- ii. Equipment commissioning: from July 1st to 30th, 2022, complete the monomer and linkage commissioning of the main equipment, inspect the operation of the equipment without raw material load, and improve the equipment installation according to the commissioning situation to make up for deficiencies. At the same time, the commissioning of the 100 m³ engineering test center will be completed to measure the mineral properties and the basic matching process. In August, complete the commissioning of beneficiation, boiler, power and other supporting facilities.

This project is a huge integrated system. It is not only a new design of "green + intelligent", which adopts many innovative equipment, but also involves the supply of more than ten countries. It only takes one month for equipment commissioning, which is also a fast and creative case of single equipment linkage commissioning.

- iii. Production commissioning: from 1st August to 30th October
 2022, three series of feeding commissioning will be completed
 at this stage and qualified nickel intermediate products (MHP)
 will be produced.
 - a) 1st- 30th August: complete the commissioning of the first 560 m³ high-pressure leaching reaction system and related systems, and produce qualified nickel intermediate (MHP).
 - b) 1st- 30th September: complete the commissioning of the second 560 m³ high-pressure leaching reaction system and related systems, and produce qualified nickel intermediate (MHP). At the same time, improve the operation of the first series to increase energy and reach production capacity.
 - c) 1st 30th October complete the commissioning of the third 560 m³ high-pressure leaching reaction system and related systems, and produce qualified nickel intermediate (MHP). At the same time, the first and second series of energy raising and production reaching operations will be completed.
 - d) As of 30th October, the first phase of the project will be fully operational.

It is planned that the phase I of the project will be completed by 30th October.

2) Construction plan of phase II project

The second phase of the project will start planning and upgrading and equipment procurement in August.

Based on the construction and operation experience of phase I, the planning and design and capacity allocation of phase II will be comprehensively optimized, and the monomer equipment system will be expanded from 560 m³ of high-pressure reaction system to more than 1,000 m³ of reaction system. In this way, the production capacity of 20,000 tons of metallic nickel originally planned in phase II will be greatly increased, and the total production capacity will be expanded on the basis of the original planned production capacity of 50,000 tons of metallic nickel, which will greatly reduce the investment cost per 10,000 tons of metallic nickel and improve investment efficiency.

The specific optimization and improvement of the production capacity range and investment impact will be handled by the company in accordance with the joint venture company and the company's relevant decision-making procedures. For more details, please refer to the subsequent announcement.

Over the past year, the company had responded to the global epidemic and changes in the global situation, overcome difficulties, worked hard, and promoted the rapid completion, rapid commissioning and rapid operation of this Indonesian nickel resource project with the fighting spirit of " If Loulan is not conquered, soldiers will never return ", so as to respond well to the changes in the global industry competition pattern, build a globally competitive nickel resource secure system, and control the initiative of future market development precisely. This also show our firm determination and broad mind to become the core manufacturing enterprise of global high nickel precursor.

3. Reminder of Risks

QMB Indonesia Nickel Resource Project still faces some uncertainty considering the potential macroeconomics changes, industry strategy adjustments, and market environment fluctuations. Investors please kindly be reminded of related investment risks.

It is hereby announced.

Board of directors of GEM Co., Ltd

July 24th , 2022



Figure 1: Overall view of Indonesia QMB nickel resource project



Figure 2: Central control and command center of QMB nickel resources project