九天化工集团有限公司
JIUTIAN CHEMICAL GROUP LIMITED
(Company Registration No. 200415416H)

RESPONSES TO SIAS' QUESTIONS RELATED TO ANNUAL REPORT 2023

The Board of Directors (the "**Board**") of Jiutian Chemical Group Limited (the "**Company**", together with its subsidiaries, the "**Group**") wishes to announce the response to the queries raised by the Securities Investors Association (Singapore) ("SIAS") on the Company's Annual Report for the financial year ended 31 December 2023 (released on 8 April 2024). The Company did not receive any questions from the shareholders of the Company (the "Shareholders") as at the deadline stated in the Notice of Annual General Meeting.

Please refer to the Appendix I of this announcement for details.

BY ORDER OF THE BOARD
Xu Aijun
Non-executive and Non-independent Chairman
23 April 2024

This announcement has been reviewed by the Company's Sponsor, PrimePartners Corporate Finance Pte. Ltd. (the "Sponsor"). It has not been examined or approved by the Singapore Exchange Securities Trading Limited (the "Exchange") and the Exchange assumes no responsibility for the contents of this announcement, including the correctness of any of the statements or opinions made or reports contained in this announcement.

The contact person for the Sponsor is Ms Lim Hui Ling, 16 Collyer Quay, #10-00 Income at Raffles, Singapore 049318, sponsorship@ppcf.com.sg.

Appendix I – Question From SIAS

1) As noted in the section titled "Review of operations" (page 12), the capacity utilisation of the group's Dimethylformamide (DMF) plant decreased from 67% to 32% while the capacity utilisation rate of the Methylamine (MA) plant decreased from full capacity to 64%.

In 2023, the average selling prices of DMF and MA declined by 54% and 58% to RMB5,153 per tonne and RMB6,497 per tonne, respectively. Sales volumes also decreased by 55% and 36% respectively. As a result, for the financial year ended 31 December 2023, total revenue decreased by 75% to RMB598.6 million and the group suffered gross and net losses of RMB(260.2) million and RMB(346.7) million, respectively.

(i) Can the company highlight any positive outcomes or silver lining during a particularly challenging year? What technical innovations and advancements were achieved despite the adversities in the operating environment?

(ii) Does the group's new main competitor, Jiangxi Xinlianxin Chemical Industry Co., Ltd., with a total DMF capacity of 200,000 tonnes per year, hold a cost advantage over the group? How well funded is Jiangxi Xinlianxin and does management expect an aggressive and prolonged price war with the newcomer?

(iii) Is the group competing with Jiangxi Xinlianxin (and other DMF producers) purely on a price basis?

The group has initiated a diversification strategy to expand its core business to include the manufacturing, production and sale of synthetic ammonia and urea.

(iv) What was the level of due diligence carried out by the board/management? What risks are associated with the ammonia and urea markets, particularly concerning overcapacity from new production facilities or declining demand?

Q1 Response:

(i) During FY2023, the company is committed to research and development efforts with the aim of reducing production costs to boost operational efficiency. It has implemented a series of upgrade and improvement projects such as comprehensive utilization of heat in the methylamine system and steam energy saving. In terms of power saving, it has implemented the upgrade and enhancement of the gasification vacuum pump of the DMF system, which has resulted in cost saving and efficiency improvement effects.

(ii) Compared with our major competitors in the industry (such as Xinlianxin, Hualu Hengsheng, Luxi Chemical, etc.), Anyang Jiutian's methylamine manufacturing costs are relatively higher due to our major competitors in the industry having their own synthetic ammonia production facility. From FY2020 to FY2022, due to the sharp increase in product prices of DMF and methylamine, the Group had made substantial profits and uncompetitive cost issues have not been that noticeable. Since 4Q2022, our product prices dropped sharply, and the Group reported a huge loss in FY2023. Reducing raw material and production costs has become a challenge for the Group as we are not as fully integrated as our competitors.

In order to stay competitive, the Group has embarked on a synthetic ammonia project to be a more fully integrated producer of DMF and Methylamine, and to go into the production of urea for wider product offering and a more diversified earnings base.

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Q1 Response:

By entering into production of synthetic ammonia project and Urea (the "**New Business**"), the Group will be able to achieve greater efficiencies through the vertical integration of its supply chain, allowing it to lower its costs in the manufacturing and production of DMF. This can provide the Group with a relative cost advantage, or to minimise cost disadvantage as compared to its competitors and at the same time, reduce the Group's dependence on third parties for its supply of synthetic ammonia. Further, producing the synthetic ammonia in-house will allow the Group to have greater control over the quality of the synthetic ammonia produced as the raw materials that go into the production of the synthetic ammonia, and in turn, the synthetic ammonia that will go into the production of urea and DMF by the Group, as the production process will be directly undertaken by the Group. In view of this, there are potential synergies between the Synthetic Ammonia Production Facility, the Urea Production Facility, as well as the Group's existing DMF production facility.

For further information, please refer to the Company's circular dated 5 March 2024 in relation to the Proposed Diversification and Proposed Investment (the "**Circular**") as part of the Group's strategy to enhance competitiveness within the industry by entering expanding its operational capabilities and entering the New Business.

Our major competitors in the industry, such as Jiangxi Xinlianxin, Hualu Hengsheng, Luxi Chemical are mostly listed in China A share and Hong Hong Stock Exchange.

We do not expect this price war to last long as it will harm all parties' interest. The Group regularly hold discussion with industry players to work towards a sustainable and healthy market dynamic.

(iii) Yes, the Group competes with other DMF producers primarily based on price. In the early stage after Covid 19, the market price deteriorated significantly because of the concentrated release of new production capacity to grab market share.

(iv) The Board has carefully considered the rationale, information and all other relevant facts as well as the risk factors relating to the New Business. We have also commissioned an independent feasibility study by Frost & Sullivan to evaluate the merits and risks of the New Business. After months of careful due diligence effort, the Board believes that undertaking the New Business is in the best interests of the Group and Shareholders. By entering into the New Business, the Group will be able to achieve greater efficiencies through the vertical integration of its supply chain, allowing it to lower its costs in the manufacturing and production of DMF. This can provide the Group with a relative cost advantage as compared to its competitors and at the same time, reduce the Group's dependence on third parties for its supply of synthetic ammonia.

The Group also engaged independent external consultants and professional advisers for their input and assessment relating to the Proposed Diversification before making any recommendation to procced with the Proposed Diversification.

In undertaking the New Business, the Group could be affected by a number of risks which relate to the New Business as well as those which may generally arise from, inter alia, economic, business, market and political factors. Details of these risks can be found in the Circular and the minutes of EGM held on 20 March 2024 announced on 19 April 2024.

Appendix I – Question From SIAS

2) In the sustainability report, the board reaffirmed its commitment to meet and exceeding the evolving regulatory standards[1]. China has set a national target of reaching net-zero emissions by 2060 and the board recognises that, as one of the leading global producers of DMF and MA, it has a critical role to play in spearheading a significant reduction in carbon emissions.

The group is currently engaged in the manufacturing and production of dimethylformamide (DMF), Methylamine (MA), sodium hydrosulfate and dimethylaccetamide (DMAC). The group is also involved in the processing and sale of consumable carbon dioxide. The group has also taken initial steps to go into the manufacturing, production and sale of synthetic ammonia and urea.

i. Can the company provide shareholders with an overview of the environmental impact of DMF and MA manufacturing processes? Are there significant carbon emissions or greenhouse gases emitted, and does production result in excessive wastewater or require substantial water usage?

ii. Similarly, could management provide clarification on whether the use of coal-based raw material in the manufacturing processes is considered environmentally pollutive or associated with a high carbon footprint?

iii. Which products in the group's portfolio may face potential phase-out due to environmental concerns, particularly those categorised as environmentally "dirty"?

iv. Also, is the production process for synthetic ammonia and urea considered environmentally intensive or associated with significant environmental pollutants, particularly in terms of emissions, waste generation, and resource consumption?

Footnote:

1) https://links.sgx.com/FileOpen/Jiutian%20%20SR%20Report%202023.ashx?App=Announcement&FileID=795624

Q2 Response:

(i) The production of DMF (Dimethylformamide) and MA (Methylamine) indeed has some environmental implications, particularly due to the use of coal in the processes. The coal-based process to produce DMF typically involves the reaction of dimethylamine with carbon monoxide, which is often derived from coal.

Scope 2 emissions for Jiutian arise from purchased electricity and steam, which is generated using coal, contributing to the carbon footprint.

Scope 3 emissions for Jiutian (which is currently not comprehensively reported) arise from procurement of key raw materials like carbon monoxide, ammonia, and methanol, all from coal-based processes. Hence, this can significantly add to the company's carbon footprint.

Regarding water usage and wastewater, it's noteworthy that while the production process does result in water as a byproduct, which is often released as vapor, the environmental impact is mitigated by the use of a closed-loop condensation cooling system. Such systems recycle water efficiently, minimizing water waste and reducing the need for fresh water. This reflects a commitment to reducing water wastage, which is crucial given the intensive water requirements of chemical manufacturing processes.

However, the Group wishes to highlight that we have consistently complied with all current environmental laws and regulations in the PRC. We also conduct regular monitoring and upgrading of our production systems to improve our processes to minimize our environmental impact, balancing production needs with sustainability goals.

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Q2 Response

Note:
Scope 1 emissions refer to emissions generated from the direct consumption of fuels in our operations.
Scope 2 emissions refer to emissions from the generation of purchased or acquired electricity and steam in our operations.
Scope 3 emissions refer to emissions generated from the consumption of fuels used for the delivery of our products.

(ii) As stated above, Scope 3 emissions for Jiutian (which is currently not comprehensively reported) arise from procurement of key raw materials like carbon monoxide, ammonia, and methanol, all from coal-based processes. Hence, this can significantly add to the company's carbon footprint.

(iii) Dimethylformamide (DMF) and Methylamine (MA) play critical roles across sectors such as pharmaceuticals, agriculture, and various manufacturing industries, acting as indispensable intermediates in the manufacturing of numerous essential products. As for synthetic ammonia and urea, our synthetic ammonia output will be mainly utilised as feedstock for urea and MA. Urea is directly utilised as fertiliser or employed in the creation of compound fertilisers critically needed in the agriculture sector. At present, the market does not offer substitutes that match the efficiency and cost-effectiveness of synthetic ammonia, urea, DMF and MA.

We remain vigilant and proactive in monitoring technological advancements and will promptly update our shareholders on any breakthroughs or industry shifts that arise.

(iv) The production of synthetic ammonia and urea is indeed resource-intensive, with significant energy requirements predominantly due to the high-temperature and high-pressure conditions needed for the Haber-Bosch process, which is used to synthesize ammonia.

However, our company is acutely aware of these concerns and is actively investing in research and adopting cleaner technologies. We are also exploring renewable energy sources and more efficient catalysts to reduce the energy consumption and carbon footprint of our production processes.

Additionally, we are exploring measures to capture and repurpose CO2 and other byproducts to minimize waste.

For urea production, we employ advanced technologies to reduce emissions of ammonia and particulate matter. Water usage and waste generation are also systematically managed through recycling and treatment systems, ensuring that our operations comply with stringent environmental regulations and industry best practices.

We continuously seek to optimize our processes to lessen environmental impacts, and we remain committed to innovation and sustainability while meeting the global demand for these essential agricultural and industrial chemicals.

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3) On 9 April 2024, the company announced that four independent directors (IDs), namely Mr Chan Kam Loon, Mr Wu Yu Liang, Mr Gao Guoan and Mr Chen Mingjin, would be stepping down from the board at the conclusion of the annual general meeting (AGM).

Apart from Mr Chen Mingjin who was appointed on 1 February 2018, the other three directors are long-tenured directors, having been first appointed between 19 April 2006 and 26 April 2013. Following the cessation of these directors, the only remaining independent director on the board will be Mr Koh Eng Kheng Victor.

(i) Did the nominating committee (NC) prioritise the gradual refreshment of the board? What challenges did the NC face in trying to do so?

(ii) With four out of the five independent directors stepping down at the conclusion of the AGM, will the newly constituted board face a steep learning curve?

(iii) Is there a risk of losing valuable institutional knowledge within the board, and if so, how does the board actively mitigate this risk?

(iv) Can the board provide updates on the efforts made in shortlisting and evaluating potential candidates for new independent director positions?

Q3 Response:

(i) The Nominating Committee ("NC") constantly assesses suitability of potential candidates whenever they become available and make recommendations to the Board when needed, taking into account the Board's diversity policy, candidate's track record, age, experience, capabilities and other relevant factors.

(ii) The Company will arrange for all newly appointed Directors to meet more regularly with the Company's senior management in the initial stage to familiarise themselves with the business, operations and governance practices of the Group. We will also provide newly appointed Directors with a written guide setting out their duties and obligations.

Also, a new Director who has no prior experience as a director of an issuer listed on the SGX-ST will be enrolled for the mandatory training courses in the roles and responsibilities of a director of a listed company as prescribed by SGX-ST.

(iii) In the appointment of new Directors replacing the outgoing Directors, the NC and the Board will and have taken into consideration whether a director has the relevant track record, experience, expertise and domain knowledge to contribute to the workings of the Board. All efforts will be made to minimise the loss of institutional knowledge within the Board.

(iv) The Nominating Committee and the Board are in the final stages of assessing potential candidates as part of the Board renewal process and to ensure compliance with the Listing Manual and/or the Code of Corporate Governance. The Company will make announcement(s) regarding the appointment of the new directors, and/or revision to the composition of the Board and its Committees on the SGXNet, once details become available.