

Summary of Questions and Answers at a Briefing on SDK's Third Quarter 2018 Results

18:00 - 19:00, Thursday, November 8, 2018

Briefer: Toshiharu Kato, Director, Corporate Officer and CFO

*All contents are based on the information available as of the date and time of the briefing.

[General]

Q. In the next medium-term business plan, will you maintain your strategy that it is important for SDK to promote the growth of the Chemicals, Electronics and Aluminum segments?

A. Yes. We will maintain our strategy to invest heavily in these three segments to promote the growth of them, considering recent good performance of petrochemicals and graphite electrode businesses.

Q. In the next medium-term business plan, how is your position on investment in businesses in high-purity gases for electronics, titanium oxide for MLCC, and SiC epitaxial wafer for power devices?

A. The amount of our investment in these businesses will not be so large. In the high-purity gas business, we produce and sell many kinds of gases, and our investment in this field will be an accumulation of relatively small amounts. We will increase production of titanium oxide step by step to make our production in line with our customers' plans for production capacity expansion. The market for SiC epitaxial wafers for power devices is expected to drastically expand in the near future, and we will make sure of the best timing to start our large investment in this field. We are now expanding our SiC epitaxial wafer production facilities step by step, to keep them in line with our customers' production capacity expansion. We will explain our investment plan in detail when we announce the next medium-term business plan on December 11.

Q. You are sure that SDK will achieve the target for D/E ratio you set in "Project 2020+." How is your financial strategy in the next business plan?

A. Our financial standing has been improving faster than we planned. However, we will maintain our financial discipline, and strengthen our financial standing further. We will continue investing positively in fields effective for our growth with certain scale of financial leverage.

Q. Four typhoons hit Japan this year. Were your facilities in western Japan affected by these typhoons?

A. Some buildings of plants were affected. However, we did not have any case in which our production

facilities were damaged and shipment of products were delayed.

[Petrochemicals segment]

Q. Your performance remains strong until the end of the third quarter. However, market prices of ethylene and butadiene are stagnating. How do you expect your performance will be toward the end of the year?

A. Current spread between ethylene and naphtha prices is slightly narrower than normal level. However, we see this as a temporary state resulting from transient inflow of ethylene from Europe and other areas to Asia. On the other hand, the ethylene-naphtha price spread of \$700/t, which was the average of the first half of 2018, was beyond our expectation and we think this was temporary. Now the spread is returning to normal level. Our forecast for ethylene-naphtha price spread for the second half of 2018 was narrower than the current level. Therefore, we expect that our profit in the Petrochemicals segment will be at the level of our original forecast for full year 2018. We expect our ethylene plant will keep operating at full capacity.

[Inorganics segment]

(Graphite electrodes)

Q. You said, in the third quarter, sales prices of graphite electrodes were more than four times high compared to the average of 2017. How were the averages of your sales prices of graphite electrodes in the second quarter and the third quarter? How will that be in the fourth quarter?

A. Compared to the average sales price in 2017, that in the first quarter of 2018 was about three times high, and that in the second quarter was more than three times high. That in the second half of 2018 was expected to be more than four times high. In the third quarter, that was more than four times high, which was slightly higher than we expected. The average of contract prices for domestic and Korean customers in the fourth quarter is more than five times high compared to the average sales price in 2017, and that for customers in other Asian countries is a little bit higher.

Q. It is said that spot prices of graphite electrodes in Chinese market are going down. How are the prices of graphite electrodes manufactured and sold by your Sichuan subsidiary?

A. Prices of high power (HP) graphite electrodes for ladle furnaces in China are stagnant. However, as for ultra high power graphite electrodes which our group company in China produces with high quality, the situation is quite different. Prices of UHP graphite electrodes with diameter of 24 inch or larger in Chinese market remain high.

Q. Do you expect the graphite electrode market remains in a bullish trend during the coming year?

A. Sales contracts for the coming year are under negotiation. We are requested to increase production. However, we have not started price

negotiation yet. Tight supply-demand situation will continue. So there is a strong possibility of further rises in prices.

Q. The supply of needle coke remains tight. Are you experiencing any difficulty in procurement of needle coke to be used in the expanded plant of your US subsidiary?

A. We have already procured needle coke to be used in our plants in the coming year.

Q. You have not decided yet to invest in debottlenecking of your graphite electrode plant in Malaysia, have you?

A. No, not yet. We are now focusing on realization of the effects of business integration between SDK and SHOWA DENKO CARBON Holding GmbH (former SGL GE Holding GmbH).

*Performance forecast and other statements pertaining to the future as contained in this material are based on the information available as of the date and time of the briefing regarding risk factors that could affect our future performance. Actual results may differ materially from the forecast due to a variety of risk factors, including, but not limited to, the economic conditions, costs of naphtha and other raw materials, demand for our products including graphite electrodes, market conditions, foreign exchange rates, changes in laws and regulations, and lawsuits. As to the assumptions about the consolidated performance forecast including exchange rate and domestic naphtha price, please refer to the Consolidated Financial Statements for the third quarter of 2018 which were announced on November 8, 2018.