

## **Summary of Questions and Answers at a Briefing on SDK's First Quarter 2018 Results**

18:00 - 19:00, Wednesday, May 9, 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. I would like to ask a question about the performance forecast for the first half (1H) of the year concerning segments other than the Inorganics segment. How do you expect the performance of the Petrochemicals, Electronics, and Aluminum segments will be in the second quarter (2Q) in comparison with that in the first quarter (1Q)?**

A. With regard to the Petrochemicals segment, operating income in the 2Q will decrease from that in the 1Q, though we expect the total of operating income of the segment in the 1H will increase by ¥1 billion from the earlier forecast. The difference between prices of raw material naphtha at the point of purchase and use, which had positive effect in the 1Q, will be none in the 2Q. Operating income earned by organic chemicals business and SunAllomer will slightly decrease in the 2Q. As for the Electronics segment, shipment volumes of HD media in the 2Q will be at the same level as the 1Q, and operating income from HD media business in 2Q will be at the same level as the 1Q, which will be higher than the earlier forecast. As for the Aluminum segment, operating income in the 2Q will be at the same level as the 1Q because the performance of the segment will remain good except that of domestic aluminum can business which will be a little bit negatively affected by a rise in the price of aluminum ingot.

### **[Chemicals segment]**

#### **(High-purity gases for electronics)**

**Q. Do the shipment volumes of high-purity gases for electronics to be used in the process to manufacture NAND flash memory chips remain strong?**

A. Sales of high-purity gases to be used in production processes of semiconductor chips have been increasing very much. Especially those to be used in etching process of 3D-NAND flash memory have been increasing very rapidly. The total sales of high-purity gases in the 1Q were about 10% to 20%

higher than those in the same period of the previous year.

### **[Electronics segment]**

#### **(LIB materials)**

**Q. You said shipment volumes of LIB materials and operating income earned by your LIB materials business in the 1Q increased from those in the same period of the previous year. How do you expect the LIB materials business will be in the future?**

A. In the Chinese market, which is the major destination of the shipment of our LIB materials, we expect there will be significant increase in the demand for LIB materials reflecting the increase in the shipment volumes of EVs in China. We are negotiating with our customers about raising prices of some LIB materials in order to respond to a substantial rise in prices of raw materials.

### **[Inorganics segment]**

**Q. Is it right to determine that the chief cause of the substantial increase in operating income of the Inorganics segment was a rise in prices of graphite electrodes?**

A. Yes. The chief cause of the increase was a rise in prices of graphite electrodes in the global market reflecting tight supply-demand situation.

#### **(Graphite electrodes)**

**Q. How do you expect the supply-demand situation of graphite electrodes will be in the future?**

A. We expect tight supply-demand balance will continue at least until 2020. Supply-demand situation of high-end UHP graphite electrodes changes in about a five-year cycle, which is long. The price-hike tendency of this time started in the middle of last year. We expect this underlying tendency will continue for a while. The UHP graphite electrode industry reduced its global production capacity for about 20% by last year. The high-grade needle coke industry also reduced the production capacity. We foresee that there will be

some increases in production capacities of graphite electrodes and raw material needle coke, centering on China. However, the market for UHP graphite electrodes, which are our main products, and that for SHP graphite electrodes for LFs (ladle refining furnaces), for which Chinese graphite electrode manufacturers have plan to increase their production capacities, are separated. Therefore, we expect the capacity increase by Chinese graphite electrode manufacturers will not so much affect the market for UHP graphite electrodes. In addition, expansion of graphite electrode production facilities costs a lot of money and needs long time before start of stable commercial operation. It usually takes at least two to three years after decision to invest. Therefore, even if the capacity increase by Chinese graphite electrode industry will affect the market in the future, that will not happen before 2021.

**Q. When will the Showa Denko Group's newly added facilities in the United States to produce graphite electrodes will start commercial operation?**

A. It usually takes long time to start commercial operation of graphite electrode production facilities. Therefore, we are now starting operation of those facilities step by step. We expect the amount of graphite electrodes produced by the new facilities will increase in the second half of 2018, and those facilities will start full scale operation by the end of 2018.

**Q. Des the Group have any plan to expand the capacity to produce graphite electrodes further?**

A. No. The only capacity expansion plan we now have is the step-by-step start of commercial operation of the newly added facilities in the U.S., in which the added annual production capacity is about 30,000 tons.

\*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 naphtha price, please refer to the Consolidated Financial Statements for the first quarter of 2018 which were announced on May 9, 2018.