

## Q&A Summary of the IR Business Briefing of Furukawa Electric Co., Ltd.

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Contents: Automotive Products business

Speaker:

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Q: I understand that there are high expectations for the business in FY2025, but what will growth and order reliability be like during the interim 2022-2024?

A: The orders received this year will be for vehicles entering mass production from the end of 2023 into 2024. Of the figures presented to you, 70-80% of the orders are already fixed, and the remaining orders are being negotiated. About 10% are a stretch, but the forecast is quite solid.

Q: Concerning the market trends for SRC and BSS, why do you foresee growth?

A: For SRC, in addition to being equipped more often in India, ASEAN, Brazil and other countries, sales are expected to grow due to higher value following an increase in the number of channels resulting from the addition of various functions (lane departure warning, heated steering, data communications, etc.).

For BSS, not all of the Japanese automobile manufacturers use this component, and use is particularly low in light vehicles. However, BSS are expected to be equipped more often going forward (increase from the current 35% to over 50% in 2025 and 70% in 2030) to 20 million vehicles in 2030. Of the vehicles equipped with a BSS that will enter mass production in 2024-2025, 70-80% of the orders are already fixed.

Electric vehicles are equipped with high voltage batteries such as nickel hydride and lithium-ion. When starting, these batteries require a 12V power supply, and this comes from the lead storage battery. In order to ensure the batteries in electric vehicles start-up correctly, it is important to know the state of the lead storage battery when the vehicle is turned off. Also, while driving, the high voltage battery is wired to the headlights and lead storage battery, and

by monitoring the voltage and status of lead storage battery recharging, it is possible to control the high voltage battery, which will contribute to appropriate power supply and increased life expectancy.

Q : How do you expect wire harness demand to change as a result of the advances in vehicle electrification?

A : Following the transition from engines to motors and batteries, the demand for harnesses around the engine will decline. On the other hand, high voltage harnesses will be needed to connect the motor and battery. Overall, even as vehicle electrification progresses, there will be no change to the demand for low voltage (currently 12V) control system harnesses, which make up the majority of the harnesses. Moreover, the use of high voltage harnesses will increase.

Q : Have the  $\alpha$  terminals had an effect on orders?

A : Aluminum wire harness +  $\alpha$  terminals have merits in terms of lighter weight and cost, and their use for applications which is the same level as the use of copper harnesses is progressing. Going forward, the requests are expected to further increase (use will increase).

Q : You have stated that you will not pursue share in the harness market, but will sales volumes increase following the shift to aluminum? Also, do you expect improvements to the product mix, including terminals, to result in improved profitability?

A : In regards to the shift to aluminum, although there is competition with other companies, we will work to maintain and expand orders by leveraging the high corrosion resistance of the  $\alpha$  terminals. We are increasing harness production in the Philippines and Vietnam, and planned production capacity has already been reached when taking into account the current order forecast. In anticipation of increased orders in the future, we will consider the necessary response. The price of aluminum conductor wire itself is lower than copper wire, but as a result of the added value of high corrosion resistance, including the  $\alpha$  terminals, the price of aluminum wire harnesses is expected to be about the same as copper harnesses. In terms of profits, there is no major difference between aluminum and copper harnesses.

In regards to corrosion-proofing, the automobile manufacturer can do this for additional cost and if there is sufficient space. The key point is securing maximum corrosion resistance while minimizing the cost and space requirements. As a result, other companies face severe limitations on the usable locations and routes, and this is the strength of the  $\alpha$  terminals.

Q: Last year, the overseas locations suffered due to COVID-19, but what is the current situation?

A: We caused inconvenience to our customers last year as a result of the lockdown in the Philippines. Since then, we have been working to add multiple layers to the supply chain as part of the response to BCM. All risk management is being addressed mainly in Japan, and there are currently no major problems.

Q: As the demand for electric vehicles increases, how will that weigh on your business? Will it be possible to maintain orders?

A: Because reducing vehicle weight leads to improved fuel efficiency, the use of (aluminum) harnesses, including high voltage components, will also increase for electric vehicles. Conversely, because the volume of EV/FCV will (for the time being) be limited, we believe it is necessary to compete through a common design rather than designing for the specifications of each customer. The use of low voltage harnesses themselves will not decrease following the advances in vehicle electrification, so there is not expected to be any major (negative) impact on the business.

Q: Will the efforts to strengthen the global supply chain (SC) lead to higher fixed expenses in the future? What are your thoughts about the balance between higher costs and a stronger SC?

A: We need to make advance investments following the increase in locations, but we will make those investments with consideration for the cost-benefit balance and while working to quickly recover the investment. Also, we will move forward based on the trends in product orders. In principle, we do not intend to increase the number of locations. By maximizing the manufacturing capacity, including through automation, it should be possible to balance the medium-term investments and returns.

Q: There is often a trade-off between operating in a low cost country and business risk, but are you thinking about expanding into any regions with which you are familiar?

A: In the past, priority was placed on establishing harness production in regions with low labor costs, but this policy changed several years ago. Currently, we are primarily working to increase capacity around the current locations.

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