

Condensed Transcript of Q&A Session
Regarding Briefing on R&D Presentation

Date: July 11, 2024 (Thursday) 9:30–11:30

General

Q. Is the ratio of new product sales to R&D expenditures used as a key performance indicator (KPI) for R&D productivity? Has Fuji Electric defined any profit-related KPIs?

A.

- In the past, we considered of applying the ratio of new product sales to R&D expenditures as a KPI. However, we decided against this course as it is difficult to track the effectiveness of R&D expenditures with this indicator due to the time lag between expenditures and their actual contributions to sales. Accordingly, we have chosen sales of new products as our KPI for development efficiency.
- We intend to examine the possibility of adopting a profit-related KPI.

Q. We are currently witnessing a lot of movement in the green transformation and digital transformation fields. Does Fuji Electric have any intentions to buy technologies in these fields. If so, what sectors will be targeted?

A.

- We believe it will be important for us to acquire technologies in the digital transformation and green transformation fields. Fuji Electric has long adopted a proactive approach toward open innovation. For example, we have established a social collaboration research department together with the University of Tokyo. This department is currently conducting cutting-edge R&D projects related to power transactions. Fuji Electric will be expanding its scope of collaboration with universities going forward.
- In recent years, we have begun investing in start-up companies and taking part in collaborative ventures. These activities will be used as a venue to acquire new technologies and buy time.

Q. In what new technology field does Fuji Electric have a lead over the competition?

A.

- Fields where we will not compete with other companies include, for example, carbon capture systems for ships and factories.

Q. What is Fuji Electric's strategy for recruiting R&D personnel?

A.

- Fuji Electric is accelerating its efforts to hire mid-career individuals, use internship programs to recruit new graduates, and recruit staff through joint development projects. We are also endeavoring to raise recognition of the Company through commercials, social media, and other venues.

Q. What is a measure of technology management and innovation initiatives is Fuji Electric implementing? Also, how do you track the global technology trends to expand overseas sales?

A.

- Fixed-term personnel rotations among the Corporate R&D Headquarters and business groups are used to enhance inter-organization coordination through personnel exchanges. Moreover, the rotations allow employees to utilize the techniques learned at other divisions in their own in order to drive innovation.
- Efforts to track global technology trends are centered on the technology marketing organizations involved in global product development, as opposed to on our R&D bases. The Energy and Industry business groups, for example, have six bases located around the world that conduct studies on technologies and customer trends so that this information can be used in R&D activities.

Energy / Industry

Q. What are the reasons behind the 50% increase in sales of new products from the fiscal year ended March 31, 2019, in the fiscal year ended March 31, 2024? Also, have there been any changes in comparison to Fuji Electric's initial development and sales projections?

A.

- The market environment has changed over the past five years, resulting in a change in comparison to our initial projections. In the Energy segment, growth in the data center market has resulted in greater-than-expected increases in sales of switchgears and control gears in Southeast Asia and of uninterruptable power supply systems (UPSs) in general. In the Industry segment, our drive control systems showed massive growth due to their ability to match market needs. Conversely, performance has been weak for our SOx scrubbers for ships due to the impacts of high crude oil prices. In this manner, there have been some positive factors as well as some negative factors, but overall sales of new products have surpassed our expectations.

Energy

Q. In terms of UPSs for data centers, what technological advantages does Fuji Electric boast and what points of differentiation are there in comparison to other companies?

A.

- Our large-capacity UPSs come integrated with peripheral panels and thus incorporate not only conversion equipment but also case resin transformers for power conversion and distribution boards. One point of differentiation for our UPSs is their highly patentable stack structure. This structure makes various forms of recovery and maintenance work easier to perform. Another significant point of differentiation is the patented ability for exchanges of power among units. Also, our UPSs are differentiated in terms of the compactness and space-saving benefits made possible by the integration of circuit breakers and case resin transformers into the peripheral panels. In addition to our UPS technologies, the internal unit technologies are also an important point of these systems.

Q. Have these advantages of Fuji Electric's UPSs helped the company to receive orders from foreign data center operators?

A.

- We have received strong praise for the aforementioned advantages, and we have also been praised by hyper scaler data centers for our ability to provide bundles containing

all of the needed substation equipment. A major advantage of Fuji Electric is our ability to provide comprehensive offerings including substation equipment, UPSs, and air-conditioning equipment.

Q. What are the focusing issues and challenges with regard to Fuji Electric's energy-field products for overseas markets?

A.

- In Southeast Asia, we are targeting the data center market. Our target in India is the plant system market, which we are catering to with UPSs manufactured at local factories. Fuji Electric plans to expand its energy-field operations through an approach focused on UPSs and substation equipment for Southeast and South Asian markets, particularly India and Thailand.
- In our local production of UPSs, we aim to create products that match the needs of the markets in which they are produced. To this end, we are promoting mass-production by lowering costs and stabilizing products through means such as a local procurement of parts.
- As countries around the world pursue decarbonization, we are witnessing growth in sales of substation equipment that does not use SF6 or other gases with high global warming potential. Commercializing products that do not use gas will be a key part of developing operations in Southeast Asia.

Q. What sort of barriers are there to entry into the North American data center market?

A.

- Fuji Electric is currently supplying large-capacity UPSs to the North American market. However, the specifications for substation equipment used in this market differ from those used by Fuji Electric, which makes it difficult to conduct business negotiations from the perspective of comprehensive electric equipment proposals.

Q. What is Fuji Electric's position in the Southeast Asian data center market? Also, what are Fuji Electric's regional strategies for distribution panels and other offerings?

A.

- Foreign hyper scalers have begun investing in Japan, and we have thus been moving forward with business negotiations in Japan. We have also seen foreign hyper scalers invest in Southeast Asia. This situation creates an advantage for Fuji Electric in that we can develop operations in this region together with customers with whom we have dealings in Japan.
- A key point of our regional strategies will be our relationships with data center operators. It will be critical for us to encourage hyper scaler customers to use our services in other countries in which they are investing.
- For distribution panels, Fuji Electric subsidiaries with operations centered on Singapore boast significant strengths. Accordingly, these subsidiaries will be working with hyper scaler customers as they deploy products for markets in Vietnam, Southeast Asia, and other locations.

Q. Do Fuji Electric's strategies for expanding operations in the Southeast Asian market focus more on comprehensive electric equipment proposals or on highly cost competitive standalone products?

A.

- In principle, we will seek to promote comprehensive electrical equipment proposals.

However, the high-cost consciousness of overseas markets means that we must endeavor to keep costs down. Moreover, Fuji Electric can utilize unit engineering to allow for easier maintenance and reduce labor requirements and thereby contribute to the consistent operation of data centers in overseas markets. Accordingly, our R&D strategies will focus on drawing out the strengths of our low-cost offerings and unit engineering capabilities.

Semiconductor

Q. Are Fuji Electric's R&D expenditures in the Semiconductor segment sufficient?

A.

- We feel that our R&D expenditures in the Semiconductor segment are sufficient at the moment, but will continue to reevaluate the level of expenditures based on the conditions seen going forward.

Q. It was my understanding that Fuji Electric's RC-IGBTs were the product of joint development with DENSO CORPORATION. Is the latest compact engineering technology a proprietary Fuji Electric technology? Also, have there been any changes in the company's patent strategies?

A.

- The compact engineering technology that signaled the evolution from 7th-generation RC-IGBTs to 7.5-generation RC-IGBTs is a proprietary Fuji Electric technology.
- We are conducting proprietary engineering of RC-IGBTs, and there is no change to our intention to advance patent strategies.

Q. In the industrial semiconductor business, Chinese companies are rapidly catching up with those from other countries. How great is Fuji Electric's technological lead in comparison such companies? Also, what development policies and other approaches will be utilized to maintain this competitive advantage?

A.

- We are aware of the trends in relation to Chinese companies. With a focus on developing technologies for creating more compact equipment, we will seek to differentiate our products in order to maintain our competitive edge.

Q. I understand that Fuji Electric anticipates next-generation automotive SiC modules will contribute to sales in 2030. Will SiC devices be the main option for power semiconductors for battery-electric vehicles after 2030, or will these devices have to compete with GaN devices?

A.

- We will primarily promote next-generation SiC modules leading up to 2030. After 2030, we will consider the potential for GaN devices and other wide band gap materials based on the progress in the related technologies.

Food & Beverage Distribution

Q. The Food & Beverage Distribution business group is projected to see a compound annual growth rate of less than 5% over the fiscal years ending March 31, 2025 to 2027. Can we look forward to any upturns from this projection due to contributions from digital transformation services and solutions?

A.

- We project flat growth in existing businesses, but growth is expected in operations in

the digital transformation and new distribution fields beginning in the fiscal year ending March 31, 2028. At the same time, we anticipate that digital transformation initiatives in the store system business will lead to forays in the green transformation field and thereby give us access to opportunities in a very large market.

Q. Fuji Electric's counter fixtures continue to be used by major convenience store chains. What aspects of Fuji Electric's technologies and R&D activities have been praised by such customers?

A.

- Our ability to use our extraction, fluid control, and conveyance technologies to make proposals that maximize the benefits for customers based on how they plan to use their equipment has helped encourage customers to use Fuji Electric products.
- We have won praise for our timely delivery of products and provision of installation and other services to numerous stores. Such comprehensive capabilities have enabled us to earn the trust of customers.