Vice President and Executive Officer
General Manager,
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Headquarters
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Energy Storage Devices and Systems

Basic Policies of the 2018 Medium-term Management Plan

Establish presence in global markets through increased scale

Strengths
- Business foundation in the lead-acid battery market, where there is an entry barrier for new manufacturers
- A wide array of material technologies

Weaknesses
- Delay of actual achievement overseas

Opportunities
- Needs in key industries such as telecommunications and automotive industries
- Rising concern for the environment and energy

Threats
- Possibility of global M&As
- Post-lead-acid batteries

Outcomes and Strategies of the 2018 Medium-term Management Plan

FY2016 Progress	Initiatives for FY2017	Goals for FY2018	Goals for the 10-year Strategy
Overall		**Regional strategies** **Manufacturing synergy (Optimization of bases)** Put the new industrial and automotive battery businesses in Europe and ASEAN into full swing **Sales strategies** **Sales synergy** Utilize branding and maximize cross-selling **Product strategies** **Development synergy (High value-added products)** •Industrial: Development of new products that generate synergy •Automotive: Expansion of our ISS-equipped vehicle batteries in Europe •Capacitors: Shift to high-performance products	To become one of the global top three manufacturers of automotive and industrial batteries and capacitors
•Acquired European business base through consolidation of FET	•Generate synergy with FET		
Industrial batteries			
•Generated synergy with HCEN	•Reinforce efforts to expand sales in global telecommunications field		
•Amassed experience in global new energy trials •Commoditization of lithium-ion batteries	•Use results of trials to accelerate shift from battery cell sales to systems and service business		
Automotive batteries			
•Insufficient reinforcement of HCTD	•ASEAN: Strengthen support system to HCTD (Strengthen manufacturing capabilities) •Europe: Introduce technologies to FET and prepare for mass production		
Capacitors			
•Launched new high-performance products	•Shift products to high-performance capacitors		

M&A/Alliance strategies

The Energy Storage Devices and Systems Business will focus on "reinforcing platform for global operations (increase production sites and sales offices)" and acquire technologies and business platforms from outside the Company.

ROIC (FY2016)

6.0%

(FY2018 Target: 10%)

The Energy Storage Devices and Systems Business is aiming not only enhance its added-value through streamlining and a reexamination of its materials and processes but also to create high value-added products through the effects of synergy with the companies it has acquired through M&As.

Fiscal Year 2016 Progress

Revenue of industrial and automotive batteries exceeded that of the previous year, which was due in large part to the consolidation of FET, the Italian storage battery manufacturer. As a result, we were able to establish our first manufacturing base in Europe, while at the same time acquiring a global sales network centered in Europe. In industrial batteries, we endeavored to generate synergy with HCEN of Taiwan, which became a consolidated subsidiary in fiscal year 2015. In automotive batteries, we were able to increase sales of repair services in addition to expanding shares in conjunction with the sales of the ISS battery, "Tuflong G3." Sales of capacitors fell short of the previous fiscal year due to the decrease in demand in wind power generation. We are also participating in the renewable energy-related demonstration projects in Europe conducted by NEDO (New Energy and Industrial Technology Development Organization) and proceeding with the effectiveness evaluations of storage battery systems in Germany and Poland.

NEDO European Verification Projects

•Speyer, Germany (From FY2015 to FY2017 (planned))

By combining the technologies of hybrid lithium ion and lead-acid battery energy storage and thermal collectors with global remote monitoring technology, the project aims to develop a system and an operational model that will improve the in-house consumption rate of photovoltaic generation and generate economic benefits for the user.

The exterior of the system in Speyer

•Niedersachsen, Germany (FY2017-FY2019 (planned))

The project aims to build a large-scale hybrid battery system that can stabilize the power grid and control the electric power supply and demand balance, by charging and discharging storage batteries, as well as to establish a new business model for electricity trading using the battery system.

•Poland (FY2017-FY2020 (planned))

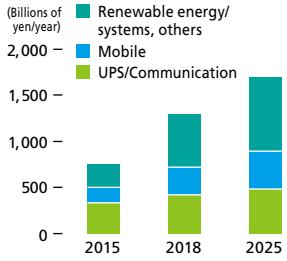
By combining battery energy storage systems, the project aims to build a system that will increase renewable energy, curb capital expenditures into electrical infrastructure and stabilize the power grid in Poland.

Key Measures for Fiscal Year 2017

Industrial systems: Bolster capturing of demand in growth areas

By understanding our customer needs, we will aim to provide optimal battery and energy storage system solutions, as "a battery-maker that understands systems." Hitachi Chemical will continue to pursue the verification projects of NEDO in Europe, while at the same time utilize the results to shift to a systems and service business. We will also leverage our track record in both the lithium-ion and lead-acid battery technologies to increase sales of remote monitoring devices , which in the event of equipment malfunctions at data centers or telecommunication base stations, will enable early detection and the reduction of maintenance man-hours. Additionally, we will expand sales in the field of global telecommunications by strengthening our collaboration with HCEN and FET. In terms of capacitors, we will transition to high-performance capacitors and focus on the medical, social infrastructure and energy fields.

Forecast market for industrial batteries (Source: Hitachi Chemical)



Capture global demand by expanding automotive battery bases

In Europe, we will take advantage of FET's sales networks and brand strength, while at the same time introduce Hitachi Chemical's environmentally-friendly ISS-equipped vehicle battery technologies to FET and prepare for mass production in Europe. Furthermore, in conjunction with the market expansion in the ASEAN region, we will strengthen our manufacturing capabilities primarily through HCTD while expanding manufacturing bases and establishing sales channels.

Product examples: Lithium-ion battery-powered golf carts [ECO5-ZL]

In April 2016, Hitachi Chemical launched the first lithium-ion battery-powered golf cart in Japan. Following the warm reception by the market, a total of approximately 400 golf carts have been adopted by twelve golf courses in Japan, as of May 2017. By leveraging Hitachi Chemical's technology, we offer golf carts that are environmentally-friendly, quiet, and safe, as well as provide total support including after-sales services.

HITACHI HICART (ECO5-ZL)
Lithium-ion battery-powered golf cart

CH75-8
Lithium-ion battery

FET

FIAMM Energy Technology S.p.A. was split from the FIAMM S.p.A. Group and succeeded the automotive and industrial lead-acid battery business (excluding certain parts of the China business), from among the FIAMM S.p.A. Group's businesses. FIAMM Energy Technology S.p.A. has a high market share especially in Europe.

Please also refer to P.06, 31-32, for information on FIAMM Energy Technology S.p.A.

HCEN

Hitachi Chemical Energy Technology Co., Ltd. (former CSB Battery Co., Ltd.)

HCTD

Hitachi Chemical Asia (Thailand) Co., Ltd.

Major Products

Tuflong Series

These are next-generation lead-acid batteries for vehicles equipped with idling stop systems (ISS) featuring enhanced durability and charge acceptance. By leveraging the strengths of the Hitachi Chemical Group, namely its material technologies and analysis technology, we have made these batteries 1.5 times more durable than our existing ISS batteries.

Industrial Lead-acid Batteries

By leveraging Hitachi Chemical's proprietary electrode technology, these contribute to leveling the output in wind power and solar power generation, as well as the stable supply of electricity used in buildings and factories.

Features of ECO5-ZL

1. Long battery life
Approximately 3 times the life of conventional lead-acid batteries

2. Longer distance
May be driven for 2 rounds compared to 1.5 rounds with conventional lead-acid batteries

3. Lightweight
100 kilograms lighter than conventional lead-acid-battery-powered golf carts

4. Less recharging costs
Uses 30% less electricity compared to conventional lead-acid-powered batteries

*The above values represent comparisons with the Company's lead-acid batteries.

*Results may vary according to the conditions of the golf course.