

FURUKAWA BATTERY

# REPORT 2016



FURUKAWA BATTERY

To contribute to the realization of a rich and sustainable society

# FOR SOCIETY

SIAM FURUKAWA CO., LTD. (Thailand)



33.1%

In 1992, jointly established Siam Furukawa Battery Co., Ltd. with The Siam Cement Public Company, Ltd. in Thailand. In 2013, manufacturing company and distribution company of lead-acid storage battery for automobiles also established as joint ventures in Indonesia for the expansion of our business on a global scale.



# Furukawa Battery supports energy in society with two business segments.

#### **Automobile segment**

# World's first technology

ECHNO IS UltraBattery is granted patent with world's first adoption of UltraBattery technology (capacitor hybrid), and is the industry's first battery of exclusive use for idling-stop vehicle. The speed of recovering charge is improved by 30% and life span is doubled compared to conventional product.



#### **Industrial segment**

# A lot of contribution to the most advanced field of technology such as;

Lithium-ion battery for a satellite with immense praise and performance as a power supply of satellite that requires extremely high-level of reliability.

It is mounted in asteroid explorer Hayabusa 2. MT series alkaline storage battery for railway cars is adopted in Narita Express.



### Philosophy of Furukawa Battery



#### **FURUKAWA BATTERY**

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#### ■Editorial policy

Furukawa Battery manufactures and sells batteries that are designed to store energy and then use it when required. We are committed to producing environmentally friendly products, as a provider of energy supply systems that form an essential part of people's everyday lives. We have edited this report with the aim of concisely outlining our initiatives based on our targets, results and activities, as well as specific examples.

While editing this report, we have made all possible effort to produce a report that adheres to the frameworks of the "G4 Sustainability Reporting Guidelines" of the Global Reporting Initiative and the "Environmental Reporting Guidelines (Year 2012)" of the Ministry of the Environment (Japan Government). As a part of the Furukawa Battery Group's efforts to address the 7 core subjects of social responsibility outlined by ISO 26000, we created the following marks.



#### ■Organizations covered by this report

This report covers The Furukawa Battery Co., Ltd. and all of its consolidated subsidiaries. Environmental data relates to Furukawa Battery's Iwaki and Imaichi Plants.

#### ■Reporting period

Fiscal 2015 (April 2015 - March 2016)

#### ■ Date of publication

June 2016 (Next report scheduled to be published in June 2017. Previous report published in August 2015)

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This report has been compiled using the latest information at the time of editing and includes some information prior to fiscal 2015. Please bear in mind that forecasts and other forward-looking statements are subject to change. Actual results may vary due to any number of reasons.

#### Guidance on the homepage

We show more detailed information about CSR of Furukawa Battery on a homepage.

http://www.furukawadenchi.co.jp/english/

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# TOP MESSAGE



In the era when the pursue continuous the establish rich

#### Business environment surrounding us

Economy is showing modest recovery, however, unstable factors such as downturn risk of emerging economies including China are still existing in 2016. From medium to long term perspectives, it can be said that increasing demand arises from 2020 Tokyo Olympics and inbound tourism contribute to expansion of growth rate.

Unstable situation like terrorism is thought to detract world economic growth, but in Asia, active demand of infrastructure is expanding the market causing new business creation.

Market situation is hard as domestic procurement of waste battery, production material, is becoming difficult. Although amidst of market change like this, we will focus on increase of market share in Japan. At the same time, we will secure the overseas market based on our rapidly growing plant sites in Indonesia and Thailand as well as promote exploring more sites that are new.

Katsutoshi Tokuyama, President



### form of energy is diversifying, we innovation of technology and contribute to social environment with imagination.

#### Furukawa Battery new growth strategy

In overseas business, since we have established production bases of batteries for automobiles and motorcycles in Thailand in 1992 and in Indonesia in 2013, we have implemented initiatives to expand sales in South East Asia, improve productivity and stabilize quality based on our technology and expertise in Japan aiming at achievement of our long-term management vision, Dynamic Innovation 2020. We invested proactively and largely last year. New plant of PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING (FIBM) that was completed in February 2015 has already started mass production of batteries in Indonesia. In Thailand, Siam Furukawa, overseas subsidiary, is showing steady growth and expanding sales network of the lead-acid storage battery for automobiles.

In domestic market, we will beat the competitors with paradigm shift to break the sense of stagnation of the market and commitment with speed through the measures such as integration of distributors to enhance sales strengths. We will put all our effort to develop new products that will lead our strategy following MgBOX (magnesium-air battery in paper container).

#### Governance and compliance

We will achieve further management efficiency through business management system that integrated quality management system (QMS) and environment management system (EMS).

In addition, we promote Zero Occupational Accident Activity to achieve safe and comfortable workplace. Compliance with environment-related laws and regulations concerning products and services and agreement with the local authorities we offer is part of this activity. We will do all our effort for sustainable improvement of our environmental preservation activities.

#### Selection and Concentration - Formulation of new Medium-Term Management Plan

Considering this situation, we established a new Medium-Tem Management Plan for fiscal years 2016 through 2018 and this year is the first year of the Plan. Basic policies in the Plan are as follows:

- 1. Build a culture that puts safety above all and create safe, comfortable and pleasant workplaces for mind and body.
- 2. Achieve the financial target of consolidated sales as the first step of formulation of the Medium-Term Management Plan for fiscal years 2016 through 2018.
- 3. We established our foundation during five years until fiscal 2015 and placed five years from fiscal 2016 as 2nd phase to take actions to achieve our long-term management vision, "Dynamic Innovation 2020". In this year, the first year of 2nd phase of taking actions, we will make aggressive growth strategy.
- 4. Implement basic policies and key measures set out in each division with agility based on Selection and Concentration.

#### With stakeholders

The Company will take initiatives for value creation through our business with our stakeholders and raise competitiveness of our business by enhancing collaboration within entire group. In addition, we speedy improve quality, environment and compliance with laws to increase customer satisfaction.

We will appreciate continuous support to Furukawa Battery Group from shareholders.

07

# At a Glance

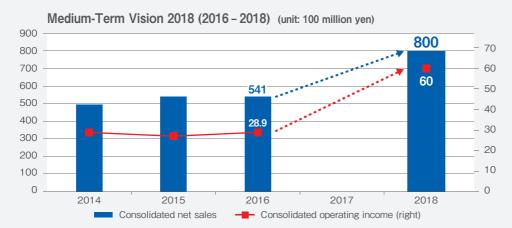
## Dynamic Innovation 2020

Toward the actualization of the long-term vision, Dynamic Innovation 2020, we will take actions in coming five years starting from fiscal 2016 following fiscal 2015 when we have made foundation. We will take measures with agility from the perspective of selection and concentration.

We will actively implement the growth strategies in the medium-term vision 2018 (2016 – 2018) in the second phase.

#### Group-wide key measures

- 1. Initiatives toward securing safety, environment, and quality (high-quality products that can be produced in safe and comfortable workplace)
- 2. Compliance (thorough compliance / prevention and reduction of loss with risk control)
- 3. Streamlining and profitability (selection and concentration to expand new business)
- 4. Strengthen cooperation within Furukawa Electric Group (strengthen global expansion through One Furukawa activities)
- 5. Energize intermediary divisions (enhance and foster personnel through human resources management system aiming at further strengthening of foundation for growth)
- **6.** Increase efficiency of expenditures (selection and concentration to increase efficiency)



#### Overseas business

#### [Outline]

Expand business globally focusing on SIAM FURUKAWA CO., LTD. in Thailand and PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING in Indonesia.

#### Key measures

Enhancement of SFC base, early start of business and sales expansion in FIBM, and in addition, increase of consolidated overseas sales ratio from 33.1% to over 53.1% through export of lead-acid storage batteries for use in industry.

#### Equipment and production technology division

#### [Outline]

Improve product quality and reliability, as well as develop basic technology, production technology and plant engineering to increase productivity and reduce costs.

#### Key measures

Raise operation rate of the facilities subject of Fukushima restoration subsidy, increase efficiency of UB facility, and promote advancing lwaki and Imaichi Plants as the mother plants.

#### Our business and growth strategy

#### Automobile

Broad lineup of products for k-cars and mid-size cars, large-size cars, and for motorcycles as well as batteries with high-performance and high-reliability suited for hybrid cars and ISS cars. In addition, we are promoting the development and commercialization of new-standard battery in collaboration with manufacturing companies.





UltraBattery for k-cars and mid-size cars

Battery for large-size cars





Battery for motorcycles

European Standard Battery

#### Key measures

Augment lineup of next-generation cells that bring new business creation on track amidst Fukushima restoration and increase margin through their market share expansion due to the reduction of costs. Develop production to overseas bases placing Iwaki and Imaichi Plants as the mother plants.

#### [Disaster prevention]

Supply products to prepare electricity supply in case of power failure caused by accident or disaster. Electricity is an indispensable utility required at the time of disaster. We develop products to provide electricity when disaster occurs.





Storage battery for emergency use including emergency lights

Magnesium air battery for emergency use MgBOX and MgBOX slim

#### Industrial infrastructure

Sophisticated information society based on computers increasingly depends on electricity and expectation for its reliability is now extremely high. Power supply cannot be cut even a moment. Reliable energy supply in emergency is necessary to prevent damage from accident or disaster to a minimum. Storage batteries for industrial infrastructure, combined with various power supply devices, support safe and secured social life and contribute to a comfortable life.



Industrial UltraBattery

FCP long-life control valve-regulated stationary lead-acid cycle-service battery





BMU (battery monitoring unit)

Power supply unit

#### [Train, aircraft, and space development]

Development and supply of storage batteries for trains and shinkansen as well as storage batteries for aircraft and space development.







Storage batteries for trains

Storage batteries for aircraft

Storage batteries for satellites

#### Key measures

Innovate Imaichi large-sized plant and expand businesses multi-directionally such as enhancement of alkaline and power supply systems business. Furthermore, we strengthen of enhancing the replacement field.

#### R&D division

#### [Outline]

Research and development of technology to store and convert electric energy, and increase its efficiency as well as develop new kind of cells such as lead-acid storage batteries, alkaline storage batteries, lithium-ion storage batteries and magnesium-air battery and their peripheral equipment. In addition, product development of power supply device and technology for environmental response.

#### Key measures

Formulate and implement themes per each component development. Not only enhance the initiatives on establishing lead fundamental technology but also promote development of high reliability industrial lithium-ion battery systems aiming at their commercialization. Expand application of magnesium-air battery as new product development.

<sup>\*</sup>Please refer to 40 to 41 pages regarding changes in net sales per segment.

### Products Furukawa Battery's products

In transportation systems such as automobiles, trains and ships, our products are used as the energy to actually make these systems go.

Our products also provide the energy for batteries in reserve to support the various fields in which companies are now dependent on advanced IT.











#### serve society by labouring in the background.





# New Product

Magnesium air battery for emergencies

# MgB0X slim



#### Features of MgBOX slim

At the time of a disaster, one of the most serious problem is battery consumption in a portable device. The Furukawa Battery is located in the stricken area of the Great East Japan Earthquake, and we learned what was essential in that situation. From this experience, we have developed the power source that can supply electric power easily for many portable devices, by installing them in shelters with TOPPAN PRINTING CO., LTD.

MgBOX can generate power by pouring water or sea water into it by using flame-resistant magnesium as negative material and oxygen in the air as anode material. It has high-capacity and long storage time and adopted paper container for easy disposal after use as a disposable battery.

Newly launched MgBOX slim has been intended for the use in household as battery for emergency and downsized to half the size of the conventional MgBOX with the same features are still maintained. They enable to be stored in small space.

- Generate electricity only by filling water or sea water
- Most suitable for charging of USB devices such as smartphones
- High-capacity enough to charge a smartphone for maximum 20 times
- Equipped with one output terminal of the USB type
- World's first magnesium-air battery which uses paper container (paper container is adopted for easy disposal after use as a disposable battery)
- Environmental-friendly battery that does neither emit CO<sub>2</sub> nor make noise while generating electricity

#### Comparison of the size between MgBOX and MgBOX slim



MgBOX slim has been intended for the use in household as battery for emergency and downsized to half the size of the conventional MgBOX with the same features are still maintained. They enable to be stored in small space.

#### Specification of MgBOX slim

Product name	Magnesium-air battery for emergency MgBOX slim
Size	W210×D110×H220 (mm)
Weight	Approx. 1.0 kg (Before filling water) / Approx. 2.5 kg (After filling water)
Operating time	5 days (Maximum)
Output energy	200Wh
Release date	Late February, 2016
Supplier	As emergency supply at municipalities, companies, and organizations As emergency supply for individuals

# Introduction

We introduce our new products which can contribute to the development of society and technology to pave the way for next generation.

#### Awards

- ■April 8, 2015
- Japan Packaging Competition in 2015, METI Minister Awards
- ■May 29, 2015
  - 39th Kinoshita Prize New Creation Award
- ■Julv 3, 2015
  - JECA FAIR 2015 Product Contest, Chairman Award
- ■August 27, 2015
  - 37th Japan Packaging Contest 2015, Technical Packaging Award
- November 2, 2015
  - Sixth Monodzukuri Nippon Grand Award, METI Minister's Prize in the product technology and development category
- ■November 10, 2015
  - The 12th Eco-Products Awards, Chairperson's Award, Eco-Products Awards Steering Committee







Sixth Monodzukuri Nippon Grand Award

The 12th Eco-Products Awards

#### **Automotive Battery Tester**

### **FBT-7000P**



#### Features of the FBT-7000P

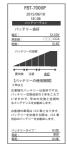
This easy-to-use battery tester is designed for multiple battery and vehicle types, including passenger vehicles, vehicles with charge control systems, idling-stop vehicles, hybrid vehicles, trucks, and busses. The tester design features heavy-duty clamps, a large full-color screen, and simple icons to select battery testing functions. The FBT-7000P also generates a paper printout with complete testing results and recommendations to share and discuss with customers.

#### Color Display & Icons



The large color screen and icons make the FBT-7000P easy for even inexperienced technicians to use. Colorful on-screen test results help illustrate battery service recommendations for customers.

#### Printout



Using the built-in printer, test results can also be printed to share and give to customers. Results include full diagnostic measurements and graphs, as well as important recommendations for battery service or replacement.

#### **Specifications**

Product name	FBT-7000P		
Size (width x height x length)	Approx. 114 mm x approx. 67 mm x approx. 292 mi		
Weight (excluding printer papers)	Approx. 1.4 kg		
Operating temperature limits	0℃-50℃		
Operating humidity limits	20%-80% (no condensation)		
Voltage range	1VDC-30VDC		
Power source	Battery / six AA size batteries		
Applicable battery standard	JIS type 26A17-245H52 IS type K-42-T110 HV accessory type S34B20-S75D31		
CCA/SAE	100-2000CCA		
DIN/IEC	100-1200A		
EN	100-2000A		
Material	ABS resin (acid resistance)		
Display panel	3.5-inch color TFT320×240		
Clamp cable length	Approx. 3 m		

# Special 1 Feature

# History of Furukawa Battery's

## Battery (secondary cell) has important role in space development.

Satellite and planetary probe use solar power as main power source. While sun light does not reach satellites and electricity cannot be generated, batteries supply power by discharging.

Various kinds of batteries are loaded in rockets to supply necessary power to control liftoff, etc.



Storage batteries for satellites

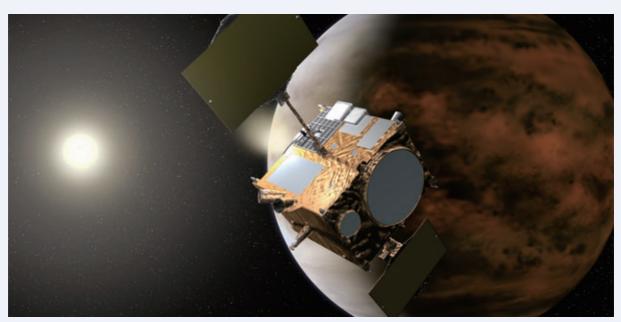


Illustration by Akihiro Ikeshita

#### Started development of batteries for satellites about 50 years ago

The Company's initiatives on batteries for space started with the development of Ni-Cd cell for satellites in 1968. Institute of Space and Astronautical Science (currently Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency) of Ministry of Education, Science and Culture (currently Ministry of Education, Culture, Sports, Science and Technology) launched Japan's first scientific satellite Shinsei

(the third satellite following Oosumi and Tansei) in 1971 and the Company's Ni-Cd cells for satellites were loaded in this satellite. From then, our Ni-Cd cells for satellites have been employed by many scientific satellites and experimental satellites including Sakigake, and Suisei that investigated Halley Comet in 1985, as well as Hakucho, Tenma, and Suzaku, X-ray astronomical satellites that did marvelous work.

# space development business

Illustration by Akihiro Ikeshita

#### H-IIA rocket employs our battery

We are engaged in development of H-IIA rocket by Science and Technology Agency, National Space Development Agency of Japan (currently Japan Aerospace Exploration Agency). H-IIA TF1 that was launched in 2001 employed two types of our Ni-Cd cell to control the first stage and for measurement and lightning to observe inside the rocket.

We started development of Ni-MH cells for satellites

in 1992. These cells are lighter than Ni-Cd cells. We have been deeply involved in the progress of space development in Japan. For example, our Ni-MH cells were utilized in the Mars explorer Nozomi which was launched in 1998, the infrared astronomical satellite AKARI which was launched in 2006, and "IKAROS", a small solar power sail demonstrator which was launched in 2011 and is famous for being the world's first space yacht.

#### Furukawa Battery contributes to space development in Japan

In the late 1990s, the demand for reduction in size and weight of devices loaded on explorers has been increasing, and we succeeded in development of lithium-ion battery for satellites at the first time in the world. Asteroid explorer Hayabusa, launched in 2003 with this lithium-ion battery equipped, returned with a sample of material from a small near-Earth asteroid named Itokawa to Earth in 2010. Lithium-ion battery supplied power to control the probe at the Earth

swing-by and to close the capsule after collecting sample from the asteroid. The Company's technology contributed to this great achievement of collecting sample from the asteroid. Even now, asteroid explorer Hayabusa 2, successor model of Hayabusa, and the Venus Climate Orbiter AKATSUKI are equipped with our lithium-ion battery for satellites as well.

Furukawa Battery's satellite battery will continue to contribute to space development in Japan.

To be a company that challenges for future technology



# Special 2 Feature 2

# Improvement of benefit use of renewable energy

Promoting the activity to both benefit the employees and respond to the environment.

#### 1 Utilizing Feed-in-Tariff scheme of renewable energy

At the Iwaki Plant, a new recharging factory for automotive batteries was completed in 2013 with 100 kW generating capacity solar power generation panel facing south on the roof. This supplies some of the power used in the plant when it is clear sunny day. In addition to that, the plant already has solar power generation panel of 20 kW in the site, which provides some power used in the plant as well.

Furthermore, in December 2014, we installed solar power generation panel of 753.2 kW on the roofs of office

building and other factory and started to sell generated power to electric power company through Feed-in-tariff scheme for renewable energy sources promoted by Ministry of Economy, Trade and Industry. We built the roof with the panel on top for parking lot for employees in February 2016. This increased generation capacity by 660 kW and total generating capacity that can be sold amounted to 1,413.2 kW to the size of mega solar. Total generating capacity in Iwaki Plant is amounted to 1,533.2 kW.

#### 2 Generating power equivalent to electricity for about 240 typical household consumption

Actual amount that was generated and sold in 2015 was 847,740 kWh, which is equivalent to electricity for about 240 households, if calculated by electricity consumption of typical household. This also equivalent to reduction of 560 tons of  $CO_2$  annually.

Taking into account the newly installed solar power generating panel on the roof of employees' parking lot which began operation in 2016, we expect larger amount of power generation and fewer environmental load such as reduction of CO<sub>2</sub> and thus, further contribution to society.

(Photo by Futaba Consultant Co., Ltd.)

# for employees and effective by installing roof to parking lot

#### 3 Activity that contribute to realization of sustainable society

By taking advantage of how Iwaki City in Fukushima Prefecture receives the longest hours of daylight annually in the Tohoku region, we will contribute to the realization of a sustainable society by operating businesses such as solar power generation (a renewable energy source) and sales of generated electricity. This will enable us to contribute to the solution of environmental issues and resource issues which are increasing in severity every year.



Solar power generating panel on the roof of parking lot (Photo by Futaba Consultant Co., Ltd.)

# FOR QUA

## To be a company trusted for high quality

We strive to provide "quality that is trusted" to meet the needs of customers and society

### Quality improvement initiatives

#### ightarrow Examples of quality initiatives

#### Support for overseas affiliated companies

In the overseas business that is indicated in Management Policy, it is urgently necessary to improve general quality including cost performance in order to enhance competitiveness in automotive battery market mostly in Asia.

Here we introduce initiatives that we apply to similar cases based on the model case of quality improvement in domestic mother plant.

In our affiliated company in Thailand, SIAM FURUKAWA CO., LTD., local staff form the global innovation promotion team with staff from Overseas Technology Department and Quality Assurance Department in Japan and take supporting initiatives.

In fiscal 2015, they implemented workers training including reviewing work method as a measure against failure in assembling

process with focus on improving quality consciousness of outsourcer.

As result of this initiative, they achieved significant reduction of proportion defective in assembling process and charging process, and it led to improvement of 5S and quality consciousness.

Communication with local staff through soccer greatly contributes to activate this initiative as well.





▲Football friendly match

PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING, an affiliated company in Indonesia, completed new plant in January 2015.

In fiscal 2015, we implemented support measures such as improvement of subcontract goods quality (early completion of molded items, audit to outsourcers), delivery support to local clients, and QC activity as a quality

improvement measure inside the company at starting plant operation.

In addition, we fully supported to organize standards to establish quality management system. In environmental front, we supported organizing situations concerning stipulated emission controlled items to penetrate compliance.



▲PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING in Indonesia

#### Company-wide QC Circle\* Competition

We continued initiatives to go back to starting point of QC activity under the improvement activity policy in fiscal 2015.

On November 24, 2015, "39th Company-wide QC Circle Competition" was held at Iwaki Plant, and total 12 circles, 9 circles including circles from affiliated companies that came out on top in each block competition and 3 invited circles, provided presentations.

Chief judge was President Tokuyama and he said, "Today we hold 39th Company-wide QC Circle Competition. Thank you to all

the people of administrative office or others who supported this competition including block competition. Today 12 circles presented and making judgement was really difficult and I get the impression that the level of each circle is rising each year."

We continue QC circle activities and make steady progress for further quality improvement.

\*QC circle···QC is an abbreviation for Quality Control.

The circle refers to the activity of groups formed at the same workplace to improve quality.



 $\blacktriangleleft$  Commemorative photo after the competition

#### $\rightarrow$

#### Connecting with the stakeholders who use our products

As we always put the customer first, we strive to provide products and services that will keep our customers satisfied. Part of our slogan is "services that guarantee satisfaction" and "reliable quality."

With that in mind, we work as a team to maintain and improve quality standards to the satisfaction of our customers, and are committed to developing new products in order to contribute to society.

We take measures on quality assurance by ensuring each division, including Research and

Development, Production Technology, Purchasing, and Sales each fulfills their respective responsibilities. To get customers to appreciate our technical development capabilities and the features of our products, so that we can build long lasting, strong trusting relationships, we publish a technical research journal called FB Technical News. This is just one of the ways in which we actively and continuously provide information, along with exhibitions, product catalogs and our website.

#### $\rightarrow$

#### **Technology Seminar held in Russia**

On October 19, 2015, Automobile Technology Department held technology seminar of automobile battery to UNICOM, Furukawa Battery agent, in Khabarovsk, the city located in eastern part of Russia.

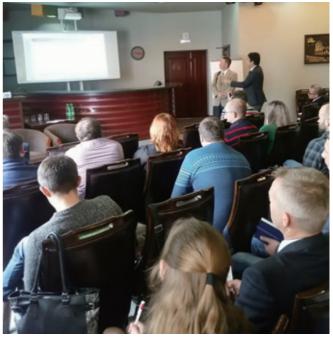
Approximately 30 participants listened the lecture enthusiastically followed by active Q and A, which became significantly meaningful.

Many questions were about inside structure and required performance of batteries that were supposed to be used in freezing environment. We could appeal FB products that have high quality performance at low temperature.

We had impression that they had interest in latest trend in Japanese automotive market, especially in eco-friendly cars such as hybrid cars represented by Prius, or idle-stop cars.

We could see many Japanese cars in town and felt that selling Japanese standard cars was a main stream. When we visited dealers and distributors to see that Japan made products were sold mainly.

We hope that the seminar leads to further penetration and expansion of FB products in Russian market.



▲At the seminar

#### $\rightarrow$

#### First shipping from Indonesia Plant

Our Indonesia Plant firstly started shipping of the products from August 29, 2015.

We will aim at sales expansion of our products that meet clients' demand by quickly respond to clients' diversified needs.



■ Commemorative photo at the first shipmen

ommunity involvement
and development
Human rights
Labour practices
Environment
practices
governance
issues

#### $\rightarrow$

#### CSR-DIW Continuous Award from Ministry of Industry for the 5th consecutive year

In recognition of efforts in CSR activities, Siam Furukawa was awarded the "CSR-DIW Continuous Award 2015" from the Department of Industrial Works, Ministry of Industry in Thailand.

Siam Furukawa received it for the fifth consecutive year from CSR-DIW Award in 2011.

Department of Industrial Works (DIW), Ministry of Industry now stopped rating by ranks, however, when they start the rating in the future, we will aim at highest rank of Level 5 (Green Network) by continuing CSR activities.

\*We received CSR-DIW Advance Award Level 4 in 2013, so next rank is the highest rank of Level 5.



▲Employees who received the award



#### Awarded Outstanding Award of Labour Relations and Welfare for 10th consecutive year



▲Commemorative photo with the employees who received the award



▲Scene of the event

Recognized for outstanding labour relations and welfare, Siam Furukawa received "Excellent Establishment on Labour Relations and Welfare Award 2015" from the Department of Labour Protection and Welfare in Thailand.

We were awarded it for 10th consecutive year from 2006 through 2015 and other 88 companies were awarded 10th consecutive year as well in entire Thailand.

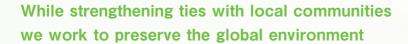
In July 2015, we held an event in the company to commemorate 10th consecutive year award and introduced the company's activities to employees.

We will strive to continue outstanding labour relations into the future.



# FOR SOCIETY & MENT

# To be a company that contributes to society and the global environment



### Contributions to the global environment



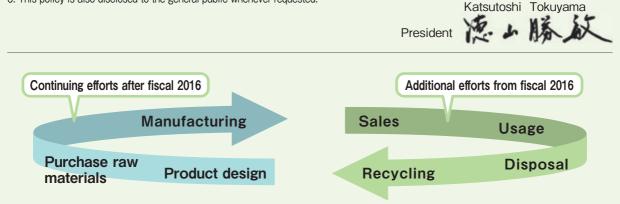
Our policy on the environment and efforts made for the environment

#### Specific EMS efforts in the business management policy for our policy on the environment

Our quality management system and environment management system have been integrated; activities based on our business

management manual begin in fiscal 2016. The following outlines specific details of our activities in the environment management system.

- 1. We build and maintain a business management manual that conforms to ISO14001 in order to preserve the global environment and to build a sustainable society.
- 2. We strive continuously to improve our environmental preservation activities, while observing environment-related regulations associated with the activities, products and services offered by the Division and agreements with the local authorities.
- 3. We promote environmental preservation activities, placing importance on the following items in each of the fields of order-taking and agreements, design and development, purchasing, manufacturing, and providing service, which is the main work of the Division.
  - (1) Saving energy to prevent global warming;
  - (2) Reducing waste products and promoting recycling to make effective use of resources and minimize environmental impact;
  - (3) Promoting the effective use and recycling of key raw materials (lead, sulfuric acid and caustic soda) in order to conserve resources and protect the environment;
  - (4) Developing products with fewer environmental contaminants in order to minimize environmental impact; and
  - (5) Contribute to the environment business, to maintain a good corporate image.
- 4. We set targets to achieve our business management policy. Every employee in each Division participates to push ahead toward those targets. Furthermore, we regularly review our targets, along with our business management policy to promote continuous improvements to our business management systemsr.
- 5. We make everyone, including in-house employees and our subcontractors, know our business management policy to raise their awareness of protecting the environment through training. Also, we communicate our policy to our subcontractors and request their cooperation.
- 6. This policy is also disclosed to the general public whenever requested.



#### **INPUT**



#### Supplies/raw materials\*1

Metals 37,600 t Chemicals 10,000 t



#### Water

Tap water 83,452 t Industrial water 219,304 t Groundwater 197.197 t



#### **Energy**

Electricity (purchased power) 68,634.1 MWh **LPG** 2,293.6 t 155.5 kl Bunker A oil 61.1 kl



#### Chemicals\*2

Volume handled 309.3 t



Kerosene 4.0 kl Light oil Gasoline 42.6 kl



#### Waste

Total waste 623.1 t Sent to landfill 26.8 t Recycled 596.4 t



#### Atmospheric environmental impact

SOx 0.38 t NOx 1.69 t Dust 0.15 t



#### Greenhouse gases

Power\*3 7,646.4 t-CO<sub>2</sub> Fuel 25,943.7 t-CO2 Total 33,590.1 t-CO2



#### Chemicals

Emissions 2.8 t Transferred 49.5 t



#### Water

Wastewater 205,116 t BOD 3.00 t SS 1.65 t

- \*1 : Main raw materials used to manufacture storage batteries
- \*2 : Chemicals specified under the PRTR Act, with the exception of lead, cadmium, nickel and compounds thereof
- \*3 : Power to CO2 conversion factors are based on annual figures from individual power companies
- \*4: Estimated volume of products shipped in fiscal 2015



#### Recycling



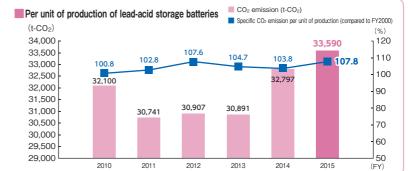
#### Trends of CO<sub>2</sub> emissions

#### Per unit of production of lead-acid storage batteries

We increased CO<sub>2</sub> emissions by approximately 4.6% in fiscal 2015, which was on par with the levels in fiscal 2010.

Specific CO<sub>2</sub> emissions per unit of production of lead-acid storage batteries increased by approximately 7.0% compared to fiscal 2010.

\*The above figures are based on a power to CO2 conversion factor of 0.378 (kg-CO<sub>2</sub>/kWh), to enable comparison between fiscal years.

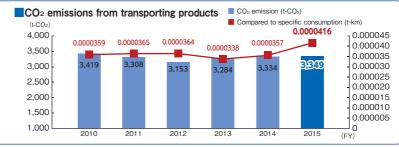


#### Improving transport efficiency

We were designated as a specified shipper (30 million ton-km) in accordance with the revised Energy Conservation Act of April 2006 and have continued to work on improving transport efficiency since then.

Although we increased CO2 emissions by approximately 1% in fiscal 2015, compared to fiscal 2010, specific emissions increased by approximately 13% per unit (compared to fiscal 2010).

We are nonetheless determined to keep on increasing transport efficiency in the future.



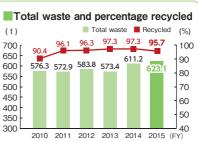
#### Wastewater

Wastewater levels at all sites were maintained within figures agreed with the relevant local authorities.



#### Waste

We recycled 95.7% of all waste in fiscal 2015. We are committed to recycling and will continue to reduce the volume of waste we generate in the future.



#### $\rightarrow$

#### **Targets and results**

In fiscal 2015, we carried out activities based on the following environmental targets.

: Achieved	<b>Y</b> : Not achieved
	Assessment
al 2013	*
% of total waste	8

### and recycling

Saving resources

**Policy** 

Recycling (including heat recovery) at least 95% of total waste 2% reduction of electric power consumption rate from fiscal 2013

Targets (FY2015)

Reduction of lead waste rate over 2% from fisca

¥

Prevention of global warming

2% reduction of CO<sub>2</sub> emissions per unit of production from fiscal 2013



**Eco-design activity** 

Commercialization of the products which support environmental load reduction: more than 7 cases per year



#### $\rightarrow$

#### Emissions and transfers of substances subject to PRTR Act

The following figures were taken in fiscal 2015 in accordance with the PRTR Act (Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof). We will continue to work on reducing emissions in the future.

Facility	Chemical	Total emissions (kg/year)	Total transferred (kg/year)
	Antimony and compounds	0.0	17.6
	Cadmium	0.9	19,110.1
	Ferric chloride	0.0	0.0
lwaki	Cobalt and compounds	0.1	252.4
Plant	Lead compounds	4.6	4,011.8
	Nickel	1.2	2,252.5
	Nickel compounds	2.9	5,221.7
	Arsenic and inorganic compounds	0.0	1.5

	Chemical	Total emissions (kg/year)	Total transferred (kg/year)
	Antimony and compounds	1.3	0.0
Imaichi	Ferric chloride	0.0	0.0
	Toluene	2,115.8	0.0
Plant	Lead compounds	62.0	218.7
	Arsenic and inorganic compounds	0.1	0.0
	Methylnaphthalene	8.6	0.0

<sup>\*</sup> Emissions···Substances emitted into the air or public waters Transferred···Subcontracted waste treatment

#### $\rightarrow$

#### Managing chemicals contained in our products

Our company's environment promotion department and materials department have been visiting major raw material manufacturers to hold discussions and information exchange on process confirmation procedures and hazardous substances contained in products.

We are cooperating in the confirmation and auditing activities performed by our customers concerning the status of control of hazardous substances in products. We are committed to effectively managing hazardous chemicals contained in all of our products.

We also manage chemicals contained in our products and provide information in accordance with legislation such as the revised Waste Electrical and Electronic Equipment (WEEE) Recast Directive and the Restriction of Hazardous Substances (RoHS) Directive, particularly in Europe.

Article 8, Paragraph 2 of the revised WEEE Recast Directive (2002/96/EC) requires companies to remove and separately dispose of any materials that could potentially have a negative impact on the environment from collected electrical or electronic equipment, before proceeding with any further treatment.

As batteries are included in the list of relevant materials, as specified in Annex VII, this means that the disposal of batteries once they have been removed is subject to the Battery Directive.

The revised RoHS Directive (2011/65/EU) meanwhile clearly states that the Battery Directive takes precedence. The following extract is from Paragraph (14) of the preamble.

(14) This Directive should apply without prejudice to Union legislation on safety and health requirements and specific Union waste management legislation, in particular Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and Regulation (EC) No 850/2004.

Batteries are also exempted from the RoHS Directive under Paragraph (29) of the preamble to the new Battery Directive (2006/66/EC) issued on September 26, 2006, as stated below.

(29) Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment does not apply to batteries and accumulators used in electrical and electronic equipment.

With this in mind, we make every effort to provide information on the basis that batteries are not subject to the RoHS Directive.

The Battery Association of Japan (BAJ) has published a paper setting out a similar position on its website.

http://www.baj.or.jp/e/recycle/recycle09.html

#### School education support activities



Believing it is our mission as a storage battery manufacturer to develop human resources who can effectively utilize future energy, we have established education programs and provide ongoing support for the education of students and children who represent the next generation.

Employees from our Technology and Development Department visited Fukushima Prefectural Iwaki High School in October 2015 where our professionals gave lectures to first-year students who are interested in going into science and technology at university. Our experienced professionals directly described going on to university and the engineering trade, and impressed upon them the skills that are required of a technical researcher. Also, in December, we received students from that high school at our Iwaki Plant to allow them to hear lectures during the super science high school (SSH) multidiscipline time, tour our research and development laboratory, and to conduct simple experiments using magnesium-air batteries.





▲ Listening to an explanation of magnesium-air batteries ▲ Doing an experiment for work-environment measurements

At our UB Business Department, we have accepted one fourth-year student at Nagaoka University of Technology as an intern from October 2015 until January 2016. We have been able to provide not only knowledge about batteries by allowing this student to become actually involved in an issue in the development of lead-acid storage batteries as a research topic of the internship but also opportunities for the young person to think about what he can do when he becomes a member of society.

At our Safety & Environment Promotion Department, we have accepted five third-year students at Kitasato University, School of Allied Health Sciences as interns in August 2015 and in February 2016. By actually learning about work-environment measurements at our plant, these students were taught about the safety of workers in the company, including measurement technologies, and the three controls for labour hygiene, specifically, work-environment management, work management, and health management.

Our Environment Promotion Department has continually visits elementary schools to conduct

environment classes since 2012. In fiscal 2015, in Iwaki City, Fukushima Prefecture, we had a total of 250 students in the 4th to 6th grades from three elementary schools.

In the lessons, we showed the students various storage batteries and arranged a talk on "ways we will be able to use renewable energy in the future" and "global warming." By using a mini wind-power generator kit, we also gave the students a chance to consider the advantages and disadvantages of wind power generation, and opportunities to get a sense of the shape of future energy use through a practical workshop using a DVD.

From fiscal 2015, we added a new program that includes scientific experiments in actually creating a magnesium-air battery with the theme of manufacturing and the environment, taking advantage of the sale of our MgBOX. We had the students prepare a milk carton that is available in almost every home, to manufacture a battery that day. After the batteries were completed, we had the students learn about how they work while actually looking at and handling the batteries that they produced, and lastly, we had them think about what kinds of things environmentally friendly. We were able to stir their interest in science, while providing them with an opportunity to think preserving the environment.

In the four years since this started, we have implemented that program for approximately 700 students from a total of 14 schools. Because this is still a small activity, we are considering efforts to enable us to conduct this kind of at-site visitation type environment classes to involve even more young people.

We plan in the future to respond to such needs in the regional society and schools while proactively undertaking more school-education support activities to give even more students and young people a place to learn.





▲Student-made magnesium-air battery

▲Explanation of magnesium-air batteries

### Contributions to local communities

#### ightarrow Participated in the Eco-Mori Fair 2015 "Eco-Tochigi" exhibition

Every year at our Imaichi Plant, we co-sponsor the Eco-Mori Fair, an event geared toward learning about and gaining experience on the importance of environmental problems, and forest development. This time, we exhibited our MgBOX and allowed children to experience how electricity actually is generated as they introduced water into a battery. MgBOX demonstration



#### Participation in the "Furukawa Forest" tree-planting at the Tochigi Furukawa group



▲Tree-planting activity

Many of the Furukawa Group companies are established in Tochigi Prefecture, which is where our Imaichi Plant is located. It is also home to Furukawa Co., Ltd. which has its roots in the Ashio Copper Mine. The group of companies deepened their sense of friendliness between companies. In Ashio, we held a memorial for the 50th anniversary of the group's start to allow employees to get in touch with the company's roots, and to further strengthen their bond as a group of companies. An area of 15,000 m<sup>2</sup> was used in the Matsuki district that has gained attention in recent years as a place for learning about the environment and for afforestation activities to be a place for us to conduct public relations and plant trees as a part of our environment preservation activities. We are moving forward with planting trees at a rate of 600 m<sup>2</sup> per year. This was the first of its kind in the program that will take twenty years to complete. This time, we think that participating in such a local activity will deepen the exchange between people and businesses.

#### Cleanup activity at the local Misaki Park in the "Iwaki Furukawa Group"

"Iwaki Furukawa Group" was established in August 1990 by 10 Furukawa group companies in Iwaki city.

Before the Great East Japan Earthquake, we had been conducted cleanup at the coast every year. However after the earthquake, we stopped this cleanup for a while.

From April 2015, we started this cleanup again and we changed the location from the coast to the park. As many as 170 people who were the related company's employee including their family attended. Although the park was quite large which was equivalent to 15 times of Tokyo Dome, they tried hard to make the park beautiful.



▲The volunteers

#### Participation as lecturers at the Iwaki Shijyuku

The Iwaki Shijyuku is an educational program designed by the Iwaki City Board of Education to foster leaders who will guide Iwaki City over the next 20 to 30 years, and targets junior and senior high school students in Iwaki City.



Eight of our Technology and Development Department participated as lecturers at the Iwaki Shijyuku held October 3rd. One lecturer was assigned to each team to consult with them as an engineer about failures, and successes, and gave them hearty support about what to expect in the future, and to dispel any worries that students have. After the Iwaki Shijyuku was completed, many of the students who participated said they found the discussion on how the MgBOX came into being because of the Great East Japan Earthquake was interesting. They also added that they could see the instructors' enthusiasm in their eyes, and that inspired many of them to want to take pride in their work in the future. We are proud to say that we received many comments in which the students expressed hope for the future.

We will continue proactively to implement this kind of educational support activity in the future.

#### $\rightarrow$

#### MgBOX prize at the starting ceremony of the 2015 solar car rally (Ogata Village, Akita Prefecture)





▲MgBOX donation ceremony

▲The race

The 2015 world solar car rally FC car rally (co-sponsored by Furukawa Battery; August 8-11) was held. Executive Managing Director Ishikawa attended, where he donated the MgBOX to Mayor Takahashi of Ogata Village, before the starting ceremony.

After making the donation, a demonstration was given to allow contestants to experience recharging their smartphone. This year's event was blessed with good weather which spurred on the contestants to give their best in each competition.

#### $\rightarrow$

#### Co-sponsor of the Asia Cross Country Rally 2015

Director Ota participated in the ceremony at Chiang Mai and in starting ceremony (co-sponsored by FB; August 8-14). This was the 20th memorial event held in characteristic local regions in Asia based in Kingdom of Thailand, highlighting the status of their road systems, natural beauty and climate, such as their mountains, jungles, coastlines, plantations, and circuits and the like. Also, many of the competing vehicles were installed with our batteries, demonstrating their high potential even when installed in rally vehicles. This year's event is planned to be held on August 14, 2016. They will start by closing the walking street in Pattaya and use Angkor Wat as the goal on the 19th (distance: approximately 2,400 km).







▲The rac

#### $\rightarrow$

#### Support for special support education schools

At Imaichi Plant, we offer support to special support, local education schools and provide materials such as the manufacturing of battery accessories as teaching materials for learning about work in the school. In July, we jointly hosted with Hello Work Nikko and special support education schools to invite neighboring companies to introduce employment examples of physically impaired employees at our companies. This activity was well received. This year, we received an award of appreciation in the Tochigi Prefectural Education Promotion Conference.



◀ Award ceremony

#### $\rightarrow$

#### ightarrow Sponsor of the 2015 Yokohama ITU World Triathlon

We sponsored the 2015 Yokohama ITU World Triathlon held May 16 and 17, 2015.

We participated booth volunteering activities in the EXPO area which has been held in Yamashita Park from four years ago, and this year we joined as a triathlon race event operations supporter.

In the future, we will contribute to sponsoring activities for world conferences through sports.



▲Competing © Satoshi Takasaki/JTU



▲The volunteers

# FOR GROW

## To be a company with high expectation for growth

We will strictly comply with laws and corporate ethics and continue to take up the challenge of achieving future growth

### System to fulfill corporate responsibility

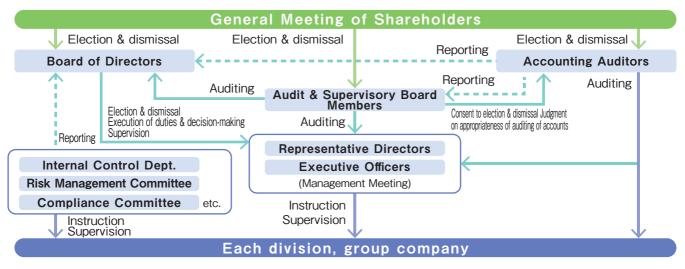
#### Corporate Governance

#### System of Corporate Governance

In June 2012, we introduced the executive officer system to improve the speed and efficiency of management. We separated the management oversight functions from the business execution functions, positioned the Board of Directors as the institution to make management decisions and supervise the execution of duties, separating these functions from the business execution functions. The Company operates a system under which management decisions are made with sufficient deliberation at meetings of the Board of Directors, which are held regularly once a month and attended by twelve directors including two outside directors and four audit and supervisory board members including two outside auditors. It also operates a system under which an

extraordinary meeting of the Board of Directors can be convened whenever necessary to deal with any issues. To enhance the audit function, we have in place a system under which we appoint audit assistants to support the auditing duties of audit and supervisory board members. We hold management meetings and business liaison meetings attended by directors, executive officers and full-time auditors to improve the speed and efficiency of execution of duties.

In addition, we submit "Corporate Governance Report" to the Tokyo Stock Exchange in December, 2015. http://www2.tse.or.jp/disc/69370/140120151113447298.pdf



#### Internal Control

We established Internal Control Basic Rules for the purpose of pursuing efficiency and effectiveness in the business operation of the Furukawa Battery Group, compliance with relevant laws and ordinances, ensuring the reliability of financial reporting, seeking to preserve assets, and helping maintain and

enhance corporate value.

We also established institutions such as the Internal Control Department, the Risk Management Committee and the Compliance Committee for the same purpose, and are working to put internal controls in place.

#### Basic Policy on the Elimination of Antisocial Forces

Furukawa Electric Co., Ltd. has set forth the Furukawa Electric Group CSR Code of Conduct as a code of conduct for its Group companies. This code clearly specifies that Group companies should adopt a resolute approach to antisocial forces.

Furukawa Battery's Board of Directors determined that Furukawa Battery shall adopt a resolute approach to any antisocial forces that threaten the safety and order of society, and its Compliance Rules stipulate it as compliance conduct guidelines.

Community involvement and development Human rights Labour practices Environment Practices Environment Practices Governance Issues

### Ensuring compliance of corporate ethics

#### $\rightarrow$

#### Fair procurement

#### Promoting CSR procurement in cooperation with suppliers

We form strong partnerships with our suppliers and procure raw materials, parts, equipment and other supplies in accordance with the following

basic procurement policy, to ensure that both sides develop together in a fair and healthy environment and fulfill their social responsibilities.

#### Basic policy on CSR procurement

- (1) We comply with laws and regulations, and public morals.
- (2) We place importance on mutual understanding and a trusting relationships based on good partnerships with all suppliers.
- (3) We always deal with all suppliers equally and fairly.
- (4) When selecting suppliers or products to be procured, we do so by evaluating the quality of the material, price, reliability of management,
- technological development capability and environmental considerations, and by following the appropriate procedures.
- (5) We sincerely work to meet the requirements of our suppliers and provide them with information required for the deal.

At the same time, we strictly manage and keep confidentially any confidential business information that we requested and received from the supplier.

#### Procurement guidelines

#### Social responsibility

- We aim to help create a genuinely fulfilled, sustainable society through our procurement activities.
- •We engage in procurement activities based on respect for human rights, working conditions, health and safety.
- •We promote environmentally friendly procurement.
- We implement social contribution initiatives aimed at living in harmony with society.

#### Fair procurement

- We select suppliers fairly, in accordance with reasonable criteria based on free competition, including the quality of the goods supplied, price, delivery date, corporate stability, technical development capabilities, manufacturing and supply capabilities, and environmental initiatives.
- We give suppliers the opportunity to compete on a level playing field, no matter where in the world they are based.

# Fair procurement Legal compliance / ethics

#### Legal compliance / ethics

- We make sure that our procurement activities comply with the spirit of the law and social norms.
- We will never disclose confidential information obtained from suppliers during the course of our procurement activities. Similarly, we will never infringe on intellectual property or other third-party rights.
- We do not engage in reciprocal trading, aimed at selling our own products and services, as part of our procurement activities.
- We do not accept hospitality, gifts, money or other tokens provided by suppliers with the aim of securing an unfair advantage.

#### ■ Green procurement

Acknowledging our responsibility to contribute to the creation a recycling society, we actively promote green procurement, which entails procuring raw materials and components that have a small burden on the environment. In addition to components and semi-finished goods such as modules, the scope of our green procurement policy also strictly prohibits the use of CFCs and substitute CFCs

such as that contained in some adhesive tapes and adhesives, not just respect to the content of the components themselves, but also to indirect materials and the manufacturing process.

Also, aiming for thorough procurement control, we submit a green procurement inspection sheet created to our specifications to all suppliers upon receiving delivery of components, etc.

#### $\rightarrow$

#### Efforts to follow subcontracting law

We recognize that there is the risk of imposing unfair trading conditions (abuse of a dominant bargaining position) by using the status of the purchaser in a trading relationship with suppliers, so we strive to eliminate that using our Materials Department as the core.

Particularly, the entire Company makes efforts to observe the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (subcontracting law).

In fiscal 2015, we held a seminar on subcontracting law in our Iwaki Plant (National Association of Trade Promotion for Small and Medium Enterprises: Implement! The Subcontracting Law). 53 people participated.



▲View of seminar

#### $\rightarrow$

#### Complying with the Furukawa Electric Group CSR Code of Conduct

One of the Furukawa Electric Group's Management Principles is to "live up to the expectation and trust invested in us by society, with fairness and integrity." To put that into practice, our Group Credo states that each and every one of our employees and executives must "maintain high ethical standards, and value honesty and integrity above all."

To enable us to carry out corporate activities in accordance with those ideals, we have set out and comply with the Furukawa Electric Group CSR Code of Conduct, as a set of basic guidelines telling employees and executives how they should behave from the

standpoint of corporate social responsibility (CSR).

We conduct follow-up activities on a regular basis, by asking all employees to review their performance based on the "Furukawa Electric Group CSR Code of Conduct" each year, and then giving them the opportunity to discuss the results with their head of department. We are committed to working as a team here at the Furukawa Battery Group, so that we can create open workplaces based on a constant awareness of compliance, and ensure that each and every one of our employees is living up to the serious expectations of our stakeholders.

#### $\rightarrow$

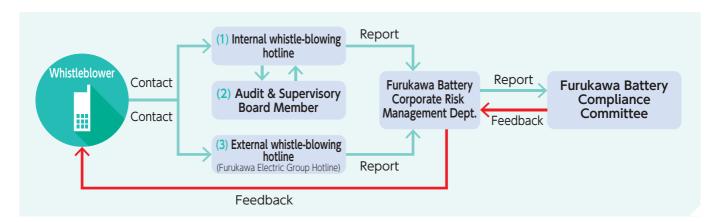
#### Establishing a whistle-blowing contact system

In an effort to prevent compliance violations, we have established a system that enables employees and executives to report violations, or suspected violations, within Furukawa Battery or any Group company directly to the Compliance Committee.

We offer three separate points of contact; (1) an internal whistle-blowing hotline, (2) anonymous contact with a full-time Audit &

Supervisory Board Member, or (3) an external whistle-blowing hotline enabling employees to report violations anonymously (Furukawa Electric Group Hotline).

Information from all three sources is then collected by the Corporate Risk Management Dept., enabling us to respond to incidents as soon as they are reported, whilst also taking sufficient care to protect the whistleblower.



#### $\rightarrow$

#### Information security system

Furukawa Battery Group has set the basic information security policy and plays the important role in social responsibility by implementing proper information management and utilization in accordance with the policy.

We have also established an information security management system and formulated an information security risk management plan, so that we can actively implement information security measures in line with social changes.

#### Example of security measures

#### [Promoting training for information security]

In order to support information security, we think it is important that each one of our employees handles their work with a high awareness of security. At the Furukawa Group, we inform each employee about information security rules and conduct information security training for new employees, and mid-career employees.



▲At training for information security

Community involvement Organizational Human rights Labour practices Environment and development governance issues

#### Conducting BCP drills

We regularly conducted disaster prevention drills, but this year, we introduced a new BCP drill.

The BCP drill is not a disaster prevention drill. This is a simulation drill on how to handle a disaster when it happens, and what to do to normalize the situation. This time, we did not inform the participants of the content. Instead, we had them make decisions about the status of the dangers that continue to occur, and the handling of an issue on the spot with information coming and going.

We were able to clarify the present BCP issues through this drill which will enable us to improve the participants' awareness of danger management.

We plan to expand this drill to other branches to improve and strengthen BCP.



▲BCP drill

#### **Business continuity plan (BCP)**

#### BCP basic policy

#### 1. Perspective of human safety

We put disaster countermeasures in place to ensure the safety of employees, other workers of our Company, their families, visitors, and other people.

#### 2. Perspective of business continuity

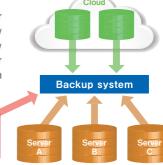
We ensure our Company is resilient to damage to ensure we can recover from a disaster quickly to continue the business and meet the needs of our customers.

#### 3. Other perspectives

We place an emphasis on the local residents and the local self-governing bodies as part of restoration efforts.

#### Data backup

To prevent loss of data due to disaster or disc damage, we continuously backup our data. As a contingency against wide-spread disaster or system damage, we save backup data at a remote location.



#### **Exhibiting at exhibitions**

We took part in the 2015 Office Disaster Prevention EXPO (July 8-10; Tokyo Big Sight), the Kansai Secondary Battery Exhibition (September 2-4; Intex Osaka), and the EcoPro 2015 (December 10-12; Tokyo Big Sight), and others.

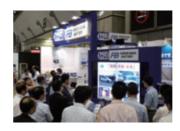
The Office Disaster Prevention EXPO is an exhibition only for disaster prevention-related companies. We exhibited only the MgBOX the first time, but we had a great many visitors to our booth.

We were able actually to show in a demonstration of the MgBOX that it can be used in emergencies, in a short amount of time, and with comparative ease.

At the EcoPro held in December, the MgBOX received the chairperson's award in the 12th Eco-Products Awards Steering Committee.

We also setup an experience corner for children to learn about magnesium-air batteries. Children were given an opportunity to learn about the nature of magnesium.

Also, we announced a new product, the MgBOX slim at the exhibition.





▲Our exhibition booth

#### Support 23rd WORLD SCOUT JAMBOREE



▲MgBOX demonstration

Approximately 34,000 young people from 155 countries from around the world came together for the 23rd WORLD SCOUT JAMBOREE held in Kirarahama, Yamaguchi Prefecture in 2015. For approximately two weeks, they shared various experiences with their friends from around the world while camping. This is a large event that happens only once every four years.

Our Company explained Japan's battery technologies, and introduced the MgBOX through demonstrations.

We also received a variety of opinions in a questionnaire given to the young people from each country that participated in our booth.

Our storage battery business aims to be a useful company by taking out stored energy when it is needed. We think that providing learning for young people to keep, who will be responsible for the future, is the role for our company.

# FORPEOPLE

# Motivated employees are our strength

We aim for a constant betterment of workplace environment with our motivated employees

### Initiatives to boost human resources

#### $\rightarrow$

#### Basic philosophy on human resource development (training goals)

Our Administration Department is putting much energy into training global human resources with an eye to human resource issues indicated in the long-term management vision.

Along with conducting overseas training for the first time targeting younger employees in fiscal 2015, we introduced a system (language communication training) that

supports personal development of our employees.

In fiscal 2016, we plan to implement educational training such as leadership management skill development for mid-career employees and career management support focusing on our female employees.

#### [Training conducted in fiscal 2015]

New employee training

New employee follow-up training

Second-year training

Overseas training

Newly appointed manager training Introduced personal development system (training using English communication)



▲At the New employee training in fiscal 2015

#### Continuity for the future

As stated in the long-term management vision, we will continue to train and foster our human resources by positioning it as our Company's most important investment.

#### **Education Office's guiding principles**

We established the Education Office's guiding principles based on our Company's corporate philosophy: "Drawing on many years of expertise in battery technology, the Furukawa Battery will contribute to the realization of a rich and sustainable society through continuous technological innovation." Specifically, our guiding principle for education is "we are challengers." We provide our employees with the support they need to improve their individual skills, through training

courses for instance. We have put in place an educational framework that enables every employee to contribute to the Company's growth with a strong desire to take on new challenges and a broad outlook. We improve our training courses every year, to enable employees to acquire the skills they need based on vocational qualifications and recommendations, and continue to raise awareness and motivation with regard to goals and targets.

Community involvement and development Human rights Labour practices Environment Fair operating Organizational Consur

### VOICE

#### Opinions from first-third year employees



Automobile Production Management Division, Manufacturing Department, Iwaki General Affairs Section

Chifumi Sato (Joined Company in 2015)

I took the follow-up training for new employees eight months after I joined the Company. In the training, we setup a fictitious company and learned about what is necessary to support the company through a team that ran the company. I found that I gained a deeper understanding of waste, which I had not thought about as much in the past. Now, I am aware of reducing waste even in inventory control in my daily work. I think I can use that to contribute to the Company's profitability.



Overseas Strategy Headquarters,
Overseas Sales Department

Subaru Ogata (Joined Company in 2014)

In my second year training, I took the class so that I can become an employee who can contribute to the success of the team. The three themes were [Followership], [Company Philosophy], and [Logical Thinking]. The training lasted two days. In the training, we deepened our understanding by exchanging opinions in the group. I will use the things I learned in this training in my daily work.



Safety & Environment Promotion Department **Hiroyasu Shirahata** (Joined Company in 2013)

Our Company has offered its long-term management vision toward 2020. The expansion of our overseas business is accelerating. In that, we have conducted overseas training in Thailand for the first time. By being exposed to a foreign country, and using all of my five senses, I was able to reconfirm my own present position, and to begin to think about what I should do to develop my own careers.

#### >

#### **Employment policy and recruitment activities**

We make every effort to provide long-term stable employment, by creating working environments and mechanisms to ensure that employees feel motivated and can do their jobs with confidence. To cope with the employment-related problems due to aging society and dwindling birthrates in

Japan, we offer a variety of different working styles every year depending on current conditions, ranging from graduate and mid-career recruitment to disability employment, reemployment of retired workers, assignment to other Group companies and temporary employment.

#### Recruitment of new graduates - the leaders of the next generation

As a member of the Furukawa Electric Group, we participate in the Furukawa Electric Group Forum. We also visit individual universities to give presentations on the Company and make a concerted effort to secure human resources. We

recruit individuals based on their personal qualities, regardless of nationality, and place a particular emphasis on interviews. In fiscal 2015, as one of the social contribution activities, Imaichi Plant and Iwaki Plant accepted interns.

#### Mid-career recruitment with an emphasis on ability

In an increasingly globalized world, we need human resources with advanced expertise. We recruit individuals with experience and expertise across a wide range of professions. In fiscal 2015, we hired 26 mid-career employees. Of that number, eight were women.

#### [Employment figures]

Employees 869
Average age 40.9
Average length of service 15.2 years

	(As of the end of March 2016)
Graduate recruits [FY2015]	31

26 (+ 2 transfer)

#### $\rightarrow$

#### Support systems for a diverse range of working styles

We respect our employees' individual lifestyle choices and provide a range of support systems to enable them to strike a work-life balance, between their job and their private life.

The items below were newly setup or revised in fiscal 2015.

#### [Implemented items and period of implementation]

	Item	Implementation period
1	New pregnancy doctor visit time off	
2	New morning sickness time off	From January 1, 2016
3	Extended period for child-rearing short-working hours system	
4	Recommended two-continuous days off	From March 16, 2016

#### Accrued leave system

The remaining number of days of annual holidays can be saved for five years, up to a maximum of 25 days off. Also, these days off can be used to care for or nurse a family member, or to receive treatment for a personal illness. Also, in fiscal 2013, we enhanced the scope of the system to include personal development leave and volunteer leave.

#### Continuing employment contract system

If employees wish to continue employment after reaching retirement age (60 years old), they may sign a continued employment contract with the Company. Although they have to meet certain conditions from the second year onwards, it is possible for employees to work through to the age of 65. We also organize "silver seminars" for employees who are approaching retirement age, to give them a chance to think about planning their lives after retirement.

#### Improving support systems

We have introduced a number of systems to help employees caring for children or family members to strike a balance between their job and their care responsibilities, including our childcare and family care leave systems, reduced working hours, and

nursing care leave. Although these support systems have all been set out in accordance with the law, we are continuing to explore ways of improving our systems in fiscal 2016, so that we can provide employees with an even more pleasant working environment.

#### [Summary of support systems]

	System	Details			
Before birth (protection of the mother's body)	New pregnancy doctor visit time off	Designed so that pregnant employees can visit the doctor for physical examinations and health supervision; employees are able to apply for and receive time off to visit their doctor. A pregnancy doctor visit leave is granted that is separate to the conventional paid vacation leave.			
	New morning sickness time off	Employees who are pregnant and are having a difficult time being employed because of morning sickness, can obtain morning-sickness leave up to 10 days (without pay).			
	Childcare leave	Available to employees with a child aged up to one year old (or up to one year and six months in certain circumstances).			
After birth (child care)	Reduced working hours	Option to reduce working hours, providing that the employee still works for six hours a day. Up to the commencement of the fourth grade of elementary school.			
	Child nursing care leave	Leave to provide nursing care for a sick or injured child (preschool children only, five days a year). Up to ten days a year if there are two or more children.			
	Family care leave of absence	Up to one calendar year for each family member requiring care.			
Family care	Reduced working hours	Option to reduce working hours, providing that the employee still works for six hours a day. Up to one calendar year for each family member requiring care.			
	Family care leave	Leave to provide care for a family member requiring care (five days a year). Up to ten days a year if there are two or more family members requiring care.			

#### VOICE

#### Childcare leave system User's comments

I used the childcare leave system for the birth of our first child. In the department to which I am assigned, there are few workers, but we must handle a great deal of work, so I thought it would be very difficult to be able to take long-term leave from the department. However, thanks to the great support I received from my coworkers, I was able to use this system.

With the birth of our child, our life has changed from what it was like before; we focus now on the child. We are busy every day, but I have been able to be a part of the joy of being there to watch the child grow. This system has allowed me to help in caring for an infant, and maintaining employment, so I think it is indispensable. I am very thankful to my supervisor, and to my coworkers for enabling me to focus on raising our child without any feelings of uncertainty.

Engineering Development Division, Research Departmen

Chiharu Kawaguchi



Community involvement Fair operating Human rights abour practices and development practices governance

### Initiatives to create a better workplace

#### Introduction of stress check

We believe that the problem of mental health is extremely important in creating a working environment where people can work with security. We introduced a stress check in 2014 before the act was enforced. The result of a stress check allows workers to become aware of their stress level. If

necessary, they can get health advice from an industrial physician. Also, we conduct group analyses that tie to improving the working environment. We will continue to make efforts to create a working environment where all of our employees can work cheerfully, securely and healthfully.

#### Company-wide health and safety activities

To ensure work environment where every one of our employees can work safely, we are promoting this activity under the slogan "Put safety first, keep rules and ensure zero accidents."

Every year, we set out a Company-wide policy on health

and safety activities where we define the key priorities and set targets. We strive to improve workplace environment by reading safety slogan aloud together every day led by President himself.

#### FY2016 Company-wide policy on health and safety activities

#### 1. Basic policy

Build a culture that puts safety above all and create safe, comfortable and pleasant workplaces for mind and body

Health and safety all come first, management resolves to attain zero accidents, and zero sicknesses

#### 3. Key targets

#### (1) Safety

A. Accidents resulting in lost workdays and those without lost workdays: Zero B. Near-miss reports: More than one/month, person C. Greetings, pointing and calling out procedures: 100% implementation

#### (2) Hygiene

A. First work control zone: Improved to 100% B. Mental health (stress check) C. Preventing excessive work

#### 4. Main measures and policies

- (1) Reduced mishap risk through essential safety
- (4) Make all employees know the health and safety standards, and autonomously control based on the management system
- (2) Training of safety workers through communication
- (5) Maintain and promote the health of the hearts and bodies of all employees
- (3) Improve the working environment and maintaining control

#### 5. Implementation and follow-up

- (1) Each department plans and implements health and safety policies based on the company-wide policy on health and safety activities.
- (2) We setup a follow-up meeting in a monthly Health and Safety Committee to follow up on the status of implementation.
- (3) We implement a management review of the health and safety activities by an audit conducted by an internal audit, and labour and management safety patrols.
- Main measures and policies: Example of efforts implemented to reduce the risk of accidents through essential safety



#### $\rightarrow$

#### Mutual trust between labour and management

With the exception of managerial staff, retired workers (with continuing employment contracts), and employees on fixed-term contracts, all employees at Furukawa Battery belong to a labour union. Communication between labour and management is crucial in order to facilitate business management, expand the Company's operations and improve working conditions. That is why we organize central management briefings twice a year, to provide explanations on subjects such as our business plans and results. We also organize divisional labour-management meetings at the divisional level, to go through monthly profit and loss figures, as well as monthly Labour-Management Subcommittee meetings to resolve issues. Labour-management health and safety patrols meanwhile take place at each of our sites twice a year. We continue to provide opportunities for dialog, so that we can keep on improving mutual trust between labour and management at every level.



▲Health and safety patrol

#### $\rightarrow$

#### Employees visited their schools to contribute to improving learning environments

Our employees at Siam Furukawa visited Sai Yok Noi Witthaya high school in Kanchanaburi Province in November 2015 to implement activities named by our Company as "FB Love My Homeland". These activities were to visit the employee's school to conduct activities to improve the learning environment. Our Company visited two schools in 2015. At Sai Yok Noi Witthaya high school, approximately fifty of our employees made a short visit to give them a restroom facility as a gift, and to update the lighting in the cafeteria, and repaint their table.

After the work was completed, everyone participated in a sporting event and a welcoming dinner party to deepen the exchange with students.

Our Company will continue these activities into 2016 to contribute to improving the learning environment at their alma mater.





▲ Group photo opportunity with people associated with the school

▲Volunteer activity

#### $\rightarrow$

#### **Sponsoring various sports**



In order to revitalize the local community, a marathon that has become a staple sporting event in the local community is held in each region. Each of our plants, and the headquarters sponsors the Nikko Highway Marathon, the Iwaki Sunshine Marathon, and the Yokohama Marathon. Athletes and management volunteers participate, making this on event with a great number of employee participation.

In addition, to promote sports in the local area, we support the H. C. Tochigi Nikko Icebucks, Tochigi Soccer Club, and JEF United Ichihara Chiba.

◆ Group participant photo

#### Participating in mangrove planting activity



▲Planting activity



▲Group photo of volunteer participants

Siam Furukawa participated in planting activities for a mangrove forest along the coast in Samut Songkhram Province in March 2015.

56 of our employees participated in this activity to plant as many as 175 mangrove sapling. They also gave the monkeys that live in the forest some of the apples and yams that they had on hand.

After that, they enjoyed a meal at a rest house offshore. It was an experience that one can only enjoy in the gulf of Thailand with its gentle waves.

All of the participating employees had a good experience and reputation was nice, so we believe we will continue to implement this activity in the future.

ommunity involvement
And development

Human rights

Labour practices

Environment

Fair operating
Organizational
Organizationa

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#### Maintaining relations with the Company after retirement

We run the Furukawa Battery OB Society for former employees who have retired. The society holds an annual meeting in October every year at three area of Yokohama, Nikko, and Iwaki. At the meeting we confirm the situation of OB and celebrate their longevity, and look through the society's financial reports, etc. The annual meeting is followed by a reception, during which members can get to know one another better and get the latest information on the Company.

Last year, if interested, we offer popular activities in each region, such as allowing visits to our Iwaki Plant.



▲Furukawa Battery OB Society Annual Meeting 2015 (Imaichi)

#### $\rightarrow$

#### Ministry of Health, Labour and Welfare Minister's Award at the Tochigi Prefectural Statistics Conference

Our Administration Department controls human resource information for the entire Company, and supports Company surveys based on the Statistics Act. This targets the FB Plant at our Imaichi Plant, and handles a survey into the status of long-term employee labour hours and wages, and reports on the status to observe and cooperate with statistical work. We were given the Ministry of Health, Labour and Welfare Minister's Award via Tochigi Prefecture where our business is located.





▲Award stand

#### VOICE

#### Always considering safety first, and striving to improve customer satisfaction

He is in charge of work in the construction department. He has worked there since joining the company five years ago.

His work begins from establishing a work plan. He installs storage batteries systems in a variety of locations such as hospitals, commercial buildings, power generating plants, and dams and the like. In addition to replacement construction, He also handles inspections, and emergency response when failures occur.

His workplace has some dangers in using cranes and heavy machines, so safety always comes first. He observes danger alert activities and work procedures to do his work in a safe manner.

In the local region, it can be difficult in having to travel long distances by car, and the roads can be snow-covered or icy in winter. Every day, He is busy with his work to improve the quality of our construction work, and our service.

Construction Management Division, Construction Department, Hokkaido Construction Group

#### Hikaru Wakui



#### VOICE

#### **Future goals**



Overseas Strategy Headquarters, Overseas Sales Planning Group

**Nurul Huda** 

One year has passed since joining Furukawa Battery. When I first entered the Company, I didn't understand the unique business culture of Japan, or the styles. It was quite difficult for me.

There is still much that I do not understand, and I must study much harder. I study hard every day, but I believe I can work hard in the future too.

I am in charge of support work for our Indonesian subsidiary called PT. FURUKAWA INDOMOBIL BATTERY SALES (FIBS). Also, part of my job is to conduct market surveys, translation, interpretation, and creating a database. I often travel between Japan and Indonesia, but I feel that it is very much worth the effort. My future goal is to become someone who is helpful to everyone around myself. To do that, I need everyone to cooperate. I really hope everyone will help me achieve my goal.

### Financial Highlights

#### Five-Year Consolidated Financial Highlights

In the storage batteries industry, technical innovation of the automobile-use batteries advances without interruption, while storage batteries have become an integral part of optimum power management in the field of alternative energy, along with renewable energy. It is expected that demand for storage batteries would increase further, thanks to emergence of new application and diversification of business models. Under such circumstances, a new building for charging automobile batteries and new equipment introduced last year in the Iwaki Plant are operated in a steady manner, contributing to improvement in functions and quality of our products and enhancement in productivity of the Plant. In addition, we

launched the magnesium-air battery "MgBOX" for emergencies that we jointly developed with Toppan Printing Co., Ltd. in December 2014, and "MgBOX slim" of which the size was reduced to about half of the conventional products for use in general household in February 2016.

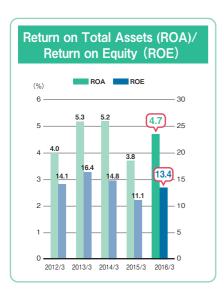
#### [Dividend for Current and Next Fiscal Years]

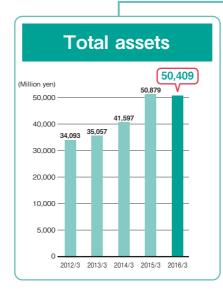
We plan to increase the year-end dividend by one yen per share from the previous year to 8 yen per share for the fiscal year that ended in March 2016 to express our appreciation to the shareholders for their support. For the fiscal year ending in March 2017, although the operating environment is expected to remain challenging, we plan to pay a year-end dividend of 9 yen per share.

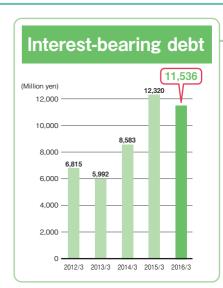
#### ● The Furukawa Battery Co., Ltd. and its consolidated subsidiaries

(Fiscal years ended March 31) Unit: Million yen

(Fiscal years ended March 51) Offic. Will				, ,	
	FY2012	FY2013	FY2014	FY2015	FY2016
Sales	42,064	44,380	49,556	53,903	54,106
Operating income	2,494	2,731	2,673	2,441	2,928
Ordinary income	2,604	2,870	2,882	2,702	2,898
Current net income	1,365	1,847	1,990	1,756	2,367
Capital investment	1,789	1,896	5,533	8,805	3,661
Depreciation expense	1,661	1,705	1,620	1,789	2,015
Research and development expense	1,547	1,518	1,504	1,548	1,427
Cash flow for business operations	628	3,606	3,702	3,844	2,763
Cash flow for investment activities	-1,699	-1,974	-5,737	-9,081	-568
Cash flow for financing activities	-674	-1,131	2,246	4,354	-943
Total assets	34,093	35,057	41,597	50,879	50,409
Interest-bearing debt	6,815	5,992	8,583	12,320	11,536
Equity capital	10,170	12,360	14,558	17,087	18,383
Equity capital ratio	29.8%	35.3%	35.0%	33.6%	36.5%





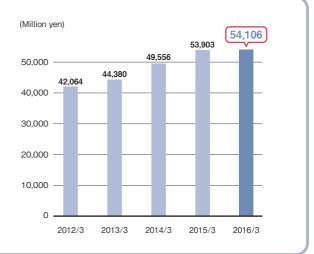


#### Sales

54,106 million yen

(0.4% increase)

Consolidated sales increased by 202 million yen, or 0.4%, to 54,106 million yen. This resulted from steady performance of our automobile-use battery business both in the overseas and domestic markets, as well as the continued strong sales of industrial batteries, which were represented by demand for renewal of power supply systems mainly in government offices.

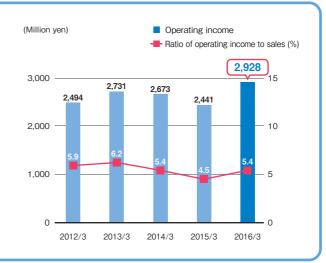


#### Operating Income / Ratio to Sales (%)

2,928 million yen

(20.0% increase)

Prices of lead, the Group's main raw material, fell, and our productivity enhanced thanks to introduction of new equipment in the Iwaki Plant. As a result, operating income increased from 2,441 million yen to 2,928 million yen.

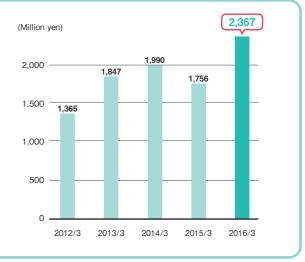


#### **Current Net Income**

2,367 million yen

(34.8% increase)

We recorded the granting of 235 million yen as a subsidy related to "the subsidy for projects promoting domestic location" granted by the Ministry of Economy, Trade and Industry under extraordinary income (State subsidy) and moreover directly deducted the said state subsidy from the acquisition cost of machinery and equipment, recording 235 million yen as "loss on reduction of noncurrent assets." After the deduction of taxes, profit attributable to owners of parent was 2,367 million yen, compared with 1,756 million yen one year earlier.



#### [Amount of capital investment]

Capital investment resulted from construction of new buildings for lead-acid batteries in the lwaki Plant in Japan and PT. Furukawa Indomobil Battery Manufacturing in Indonesia.

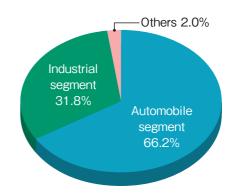
### Financial Highlights

#### Results in Each Segment

The headquarters of business operations are at the Furukawa Battery head office and there are separate organizational units to oversee operations for specific products and services. Each unit establishes comprehensive strategies for Japan and other countries for its products and services and performs operations based on these strategies.

Consequently, business segments are based on products and services in accordance with these administrative units. Operations are divided into two reportable segments: automobile and industrial.

#### Breakdown of Consolidated Sales

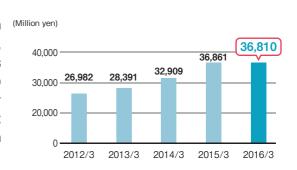


#### Automobile segment

Manufacture and sale of storage batteries for automobiles and motorcycles

sales  $36,\overline{810}$  million yen (0.1% decrease)

Sales decreased by 51 million yen, or 0.1%, to 36,810 million yen and segment income increased by 75 million yen, or 7.7%, to 1,047 million yen. While sales of replacement batteries remained robust, segment sales as a whole decreased due to impact of fluctuation in currency conversion rate. On the other hand, segment income increased thanks to a decrease in cost of goods sold resulted from price fall of lead, the Group's main raw material, and the effect of new equipment introduction.

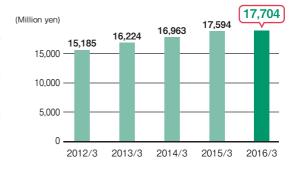


#### Industrial segment

Manufacture and sale of storage batteries for the operation of equipment, UPS (uninterruptible power system) and other products

sales 17,704 million yen (0.6% increase)

Sales increased by 110 million yen, or 0.6%, to 17,704 million yen and segment income increased by 387 million yen, or 28.4%, to 1,750 million yen. This was mainly because of an increase in demand for renewal of power supply systems mainly in government offices, and a decrease in cost of goods sold resulted from price fall of lead, the Group's main raw material.



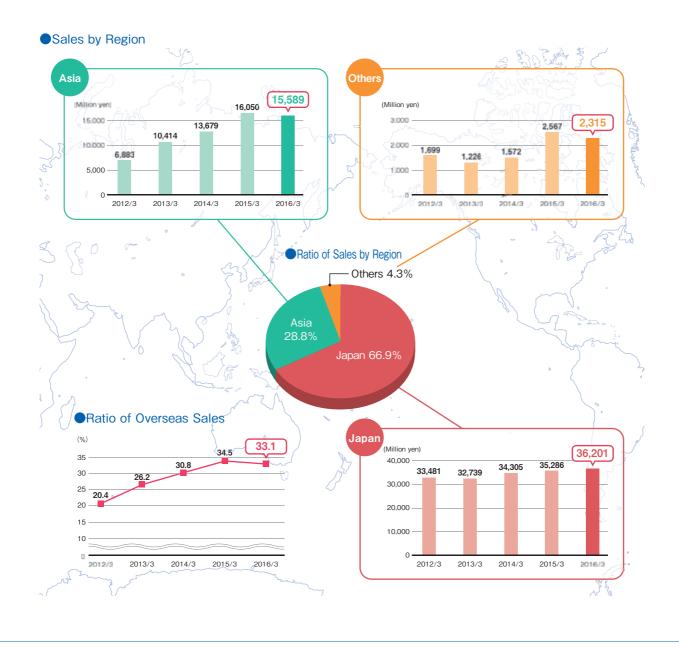
#### Overseas Sales

Overseas sales were 17,904 million yen. Our overseas sales are generated by lead-acid batteries for automobiles and motorcycles

which are sold in non-Japanese regions. The batteries are produced by our overseas subsidiary, Siam Furukawa and us, Furukawa Battery.

#### Overseas Sales / Ratio of Overseas Sales

	FY2012	FY2013	FY2014	FY2015	FY2016
Sales	42,064	44,380	49,556	53,903	54,106
Sales by region					
Japan	33,481	32,739	34,305	35,286	36,201
Asia	6,883	10,414	13,679	16,050	15,589
Others	1,699	1,226	1,572	2,567	2,315
Ratio of overseas sales	20.4%	26.2 %	30.8 %	34.5 %	33.1 %



### Profile of Furukawa Battery

Helping to create a better society through technology and products people can trust

#### ■ Corporate Profile

Corporate Name The Furukawa Battery Co., Ltd.

Head Office Hoshikawa SF Building, 2-4-1 Hoshikawa,

Hodogaya-Ku, Yokohama City, Kanagawa,

240-0006 Japan

Established September 1, 1950

(Spun off from Furukawa Electric Co., Ltd.)

President Katsutoshi Tokuyama

Paid-in Capital 1.64 billion JPY (As of March 31 2016)

Number of Employees 2,313 [Consolidated],

909 [Non-Consolidated] (As of March 31, 2016)

#### Major Products

#### **Lead-Acid Storage Batteries:**

For automobiles, motorcycles, electric powered vehicles, trains, aircrafts, ships, emergency lighting, telephone switchboards, information devices, uninterruptible power supplies (UPS), security systems, new energy power, power storage systems

#### **Alkaline Storage Batteries:**

For measurement instruments, space satellites, fire alarms, emergency broadcast systems, shutters, aircrafts, railway cars, etc.

#### **Power Supply Systems:**

DC power supply systems, AC uninterruptible power supply systems (UPS), inverters, etc.

#### Other Items:

Converters, battery chargers, storage battery diagnosis apparatus, battery testers, MgBOX, electrical work, telecommunications work, and others

#### Group Companies

#### Automobile battery sales

Furukawa Battery Marketing Co., Ltd. Niigata Furukawa Battery Co., Ltd.

#### Automobile battery production and sales

SIAM FURUKAWA CO., LTD. (Thailand)
INDOMOBIL BATTERY
MANUFACTURING (Indonesia)

#### Others

Daiichi Giken Kogyo Co., Ltd. HD Holdings Co., Ltd. FB Finance Co., Ltd. FB Package Co., Ltd.

#### History

1914	Furukawa Electric Co., Ltd. established its battery factory in Amagasaki City, Hyogo Prefecture, and	2002	Additionally acquired shares of Siam Furukawa Co., Ltd. to make it a subsidiary.
1937	started production of lead-acid batteries.  Relocated the battery plant to Hodogaya-Ku, Yokohama City for business expansion.	2003	Successfully developed the world's first lithium-ion battery for space application, which was installed in the "Hayabusa" asteroid explorer.
1950	Spun off from Furukawa Electric Co., Ltd. and founded as The Furukawa Battery Co., Ltd.	2010	Provided the "Akatsuki" Venus climate orbiter with a lithium-ion battery.
1970	Completed an automobile battery plant in Imaichi City (now Nikko City), Tochigi Prefecture.		Received a certificate of commendation from the Ministry of Education, Culture, Sports, Science and Technology, for the development of batteries installed on board "Hayabusa," the
1978	Completed an automobile battery plant in Iwaki City, Fukushima Prefecture.		compact planetary exploration craft that has achieved the world-first bringing samples back to earth from an asteroid.
1986	Constructed FB Plant (Nikko).	2011	Obtained the highest environmental rating from the Development Bank of Japan, the first time that rating has
1995	Obtained ISO 9001 certification.		been awarded in the lead-acid storage battery industry.  Launched long-life valve regulated lead-acid battery for
1999	Obtained ISO 14001 certification (Iwaki & Imaichi Plants).	*******	cycle use (FCP series).
2001	Completed company-wide certification under ISO 9001 (2000).	2012	Launched battery for vehicles with idle-stop system (ECHNO IS) and battery for hybrid vehicles (ECHNO HV).



Adopted and launched capacitor-hybrid lead-acid storage battery, UltraBattery, for cycle-service control-valve-regulated lead-acid storage battery (UB-1000) and battery for hybrid vehicles with idle-stop systems (ECHNO IS series).

Established PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING in Indonesia.

At Iwaki Plant, carry out the facilities reinforcement of the automotive lead-acid storage battery factory for Fukushima revival and competitiveness reinforcement, and July, 2014 operation start.

2014 World's first magnesium-air battery which uses paper container has been developed with TOPPAN PRINTING CO., LTD. and released. In December, MgBOX has been launched.

"Hayabusa 2", asteroid explorer was launched with our lithium-ion battery.

#### 2015 February

PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING completed its of lead-acid storage battery for automobiles of in Republic of Indonesia.

Integrated five dealerships such as the lead-acid storage battery for automobiles designed for domestic markets sales, and began as the Furukawa Battery Marketing Co., Ltd.

August First shipped products manufactured by PT.FURUKAWA INDOMOBIL BATTERY MANUFACTURING.

November Developers of the magnesium-air battery "MgBOX" for emergencies received the METI Minister's Prize in the Sixth Monodzukuri Nippon Grand Award, in the product technology and development category.

December With TOPPAN PRINTING CO., LTD., developed, announced, and began sales in February of the magnesium-air battery "MgBOX slim" for emergencies.

