Furukawa Electric Group Medium-Term Management Plan for 2013-15

April 11, 2013
Mitsuyoshi Shibata, President

Furukawa G Plan 2015
Group Global Growth
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I. Concept for Medium-Term Management Plan 2015
Focus on infrastructure and automotive markets that are expected to grow globally and where Furukawa Electric Group’s experience can be used effectively.

Building the basis for sustainable growth.
### Income statement for three years later: ensure final profit

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
<th>b-a</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net sales</strong></td>
<td>950 (forecast)</td>
<td>760 (2012 forecast)</td>
<td>900 (2015 medium term)</td>
</tr>
<tr>
<td><strong>Operating Income</strong></td>
<td>20 (2012 forecast)</td>
<td>14 (application of equity method to light metals)</td>
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<td>Profitability</td>
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<td>4.2%</td>
</tr>
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<td><strong>Ordinary Income</strong></td>
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<td>13.6 (2012 forecast)</td>
<td>40.0 (2015 medium term)</td>
</tr>
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<tr>
<td><strong>D/E ratio</strong></td>
<td>2.0 (2012 forecast)</td>
<td></td>
<td>1.3 (2015 medium term)</td>
</tr>
<tr>
<td><strong>ROA(Ordinary)</strong></td>
<td>2.1%</td>
<td></td>
<td>5.7%</td>
</tr>
</tbody>
</table>
II. Review of Medium-Term Management Plan 2012
Achievements: Expanded global locations and restructured domestic businesses

**China**
- **Resource mining cables**
  - Established joint venture with Huatong of China (Jul. 2010)
- **Preform for optical fiber**
  - Established joint venture with Hengtong of China (Nov. 2010)
- **Wire harness**
  - Acquired management rights for Chongqing Changhua of China (Jun. 2011)
- **Wire harness**
  - Founded a new company (Jan. 2012)

**Japan**
- **Magnet wire**
  - Merged 3 domestic companies (Apr. 2010)
- **Copper pipe**
  - Streamlined domestic operation (End of Dec. 2011)
- **Power components**
  - Merged 3 domestic companies (Oct. 2012)
- **Light metals**
  - Business merger with Sumitomo Light Metal (Planned for Oct. 2013)

**U.S.**
- **Superconducting wire**

**Philippines**
- **Wire harness**
  - Founded a new company (Jan. 2012)

**Taiwan**
- **Electrolytic copper foil**
  - Founded a new battery company (Mar. 2011)
  - Increased production of circuits (Jun. 2012)

**Brazil**
- **Optical fiber cables**
  - Acquired Metro Cable (Mar. 2011)
- **Full production of optical ground wires (OPGW)**
  - Commenced (Jan. 2013)
Achievements: Increased asset efficiency and continuously reduced interest-bearing debts

From ¥609 bn. on March 31, 2002 to a forecast of ¥325 bn. on March 31, 2013 (a reduction of ¥284 bn.)
Issue: Unfulfilled plans for new growth businesses

- Glass substrate material for hard discs (closed business)
- MC-PET for LED liquid crystal TVs (reduced production)
- Electrodeposited copper foils for EV lithium ion batteries (delayed)
  ⇒ Need to improve marketing capabilities, adaptability to market changes, and technical skills in mass production

Issue: Fall in profitability of existing domestic businesses

- Implementing the business structural reform announced in November
  ⇒ Need a system of reviewing business strategies corresponding to changes in the environment
III. Overview of Medium-Term Management Plan 2015
Reasons for Focus on Infrastructure and Automotive Markets

**Infrastructure and automobiles**

**Market trend: Expected to keep growing**

- Lack of natural resource supply
- Greater demand for energy \(\Rightarrow\) Need to use energy more efficiently
- Increased communication traffic \(\Rightarrow\) Potentially a long-term, stable-growth market
- Increased car ownership in emerging countries

**Strengths of Furukawa**

- Advantageous product lines that contribute to efficient energy use
- Product and technical development skills based on a wide range of materials
- Extensive experience, users, sales networks, production bases, and human resources

**Focus on infrastructure and automotive markets**
1. Growth strategy in infrastructure and automotive markets

2. Build the basis of sustainable growth
   (1) Implement structural reform
   (2) Develop new, next-generation businesses
   (3) Strengthen the Group’s global management

3. Improve the financial structure
Profit up ¥24 bn. by FY2015

Operating income (¥ billion)

2012 forecast (excl. light metals)

- Cost reduction, price fluctuation, product composition, etc. (+14)
- Structural reform (+2)
- Increase in sales (+13)
- Foreign exchange (+2)

2015 plan

- +24
Sales and Operating Income by Segment

Net Sales

- **Telecommunications**
  - 2012 forecast: 150.0
  - 2015 plan: 170.0
  - Change: +20.0 (+13.3%)

- **Energy and Industrial Products**
  - 2012 forecast: 275.0
  - 2015 plan: 320.0
  - Change: +45.0 (+16.4%)

- **Electronics and Automotive Systems**
  - 2012 forecast: 250.0
  - 2015 plan: 270.0
  - Change: +20.0 (+8.0%)

- **Metals**
  - 2012 forecast: 130.0
  - 2015 plan: 160.0
  - Change: +30.0 (+23.1%)

Operating Income

- **Telecommunications**
  - 2012 forecast: 1.5
  - 2015 plan: 11.0
  - Change: +9.5 (+633.3%)

- **Energy and Industrial Products**
  - 2012 forecast: 2.0
  - 2015 plan: 8.0
  - Change: +6.0 (+300.0%)

- **Electronics and Automotive Systems**
  - 2012 forecast: 11.0
  - 2015 plan: 14.0
  - Change: +3.0 (+27.3%)

- **Metals**
  - 2012 forecast: -0.5
  - 2015 plan: 4.0
  - Change: +4.5 (+111.1%)

* Both the 2012 sales and operating income forecasts exclude light metals.
1. Growth Strategy in Infrastructure and Automotive Markets
Implementing Growth Strategy
<1> Communication Infrastructure Business

Optical fiber cables

Market environment
- Communication traffic increases continuously
- Demand for fibers and optical cables increases, particularly in emerging countries

Our strategy
- Respond to market growth efficiently under centralized management using our global locations

Measures

Overseas
- Globally optimize our fiber production and supply systems
- Increase optical cable bases (Brazil, Russia, etc.) and increase sales in growth markets

Domestic
- Promote fiber cost reduction as one of the Group bases
- Concentrate optical cable operations in Mie and establish a supply system corresponding to domestic demand

- China (+7%)
  Inventory adjustment ended and demand is recovering

- Russia (+6%)

- Europe (+6%)

- Japan (-4%)

- Southeast Asia (+5%)
  Rapid increase in demand for FTTH

- Central and South America (+5%)
  Increasing demand associated with the big events (Brazil)

- North America (-2%)

Implementing Growth Strategy
<1> Communication Infrastructure Business

Photonics Network

**Market environment**
- Accelerated investment in digital coherent communication
- Expansion of overseas broadband market
- Emergence of the field of technological applications

**Our strategy**
- Aim to be the top vendor in the field of digital coherent communication
- Enter the overseas broadband market
- Expand advantageous technologies into related fields

**Measures**
- Provide high-output, energy-saving, integrated new products for digital coherent communication
- Win contracts for broadband projects in South America and Southeast Asia
- Applications of Photonics technology: Fiber lasers, optical interconnections
- Develop network technologies for the smart grid market

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High-output, narrow-width full-band tunable laser module (ITLA)
Pump source lasers for the Raman amplifier
Raman amplifier with automatic gain control function
Implementing Growth Strategy
<2> Power Infrastructure Business

Market environment

- Increasing demand for infrastructure, particularly in Asia, due to high-growth emerging economies
- Strong demand for underwater cables in the ultra-high voltage market
- Emergence of new businesses related to energy efficiency (smart grid, etc.)

Our strategy

- Using the technical advantage developed in the Japanese market and global manufacturing and sales bases, we will grow in the Asian and South American markets where our Group has customer bases.
- Exert the collective strength of our Group companies in new business areas such as power transmission and distribution and electricity storage.
Implementing Growth Strategy
<2> Power Infrastructure Business

**Measures**

**Ultra-high voltage**
- Double the capacity of submarine transmission cables (VISCAS)
- Expand the Out-Out business in Shenyang, China
- OPGW business accelerates global development using the communication business base in Brazil

**Power supply/distribution**
- Strengthen overseas development using links with local partners and technical advantage
- Respond to demand for new energies (wind power, solar power, etc.)

**Power storage systems**
- Increase sales of industrial power storage systems
- Develop power storage systems for smart grids
Implementing Growth Strategy
<3> Automobile-Related Markets

Market environment

- Continuous growth of automotive market, particularly in emerging countries
- Further decline in price
- Trend in product weight reduction and shift to EV/HEV and PHEV for environmental conservation (energy saving)

Our strategy

- Strengthen the local sales, design, and procurement functions overseas and expand our trade area in overseas markets, particularly in emerging countries
- Globally optimize production allocation and management resources
- Propose new products that contribute to energy conservation by making effective use of our strengths in the wide range of material technologies we deal in
Implementing Growth Strategy

<3> Automobile-Related Markets

**Measures**

- Establish regional headquarters (in China, Thailand, and Mexico) to be in charge of sales, design, and procurement
- Increase production bases, particularly in Southeast Asia and Central and South America
- Wire harness business to target Japan-based global automakers and local automakers in emerging countries
- SRC business to target all automakers and aim to maintain and increase our top global share
- Implement the comprehensive reduction of material, processing, fixed, and other costs
- Seize opportunities for material conversion and propose new products to meet customer needs
  - Promote aluminum harnesses
  - Increase the sales of UltraBattery lead-acid batteries for idle reduction
  - Increase the sales of high-performance magnet wires for motors
  - Promote power collectors (copper foils) for lithium ion batteries in the HEV/PHEV market
Generate 3/4 of Increased Profit in Infrastructure and Automotive Markets

Operating income (¥ billion)

14.0 (excl. light metals)

38.0

Generate ¥18 bn. of increased profit of ¥24 bn. in the infrastructure and automotive markets

2012 (forecast) 2015 (plan)
2. Build the Basis of Sustainable Growth

(1) Implement Structural Reform
Status of Structural Reforms of Major Businesses

<table>
<thead>
<tr>
<th>Project</th>
<th>Completed in</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Asahi Electric Works, Inoue Manufacturing, and Furukawa PC =&gt; merged company)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial electric wires: Overseas OEM</td>
<td>Dec. 2012</td>
<td></td>
</tr>
<tr>
<td>(overseas OEM of low profitability products)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(TEX: Furukawa Mie =&gt; Southeast Asian affiliate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size reduction</td>
<td>Mar. 2013</td>
<td></td>
</tr>
<tr>
<td>(personnel cuts due to downsizing associated with business division)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totoku Electric: Business merger</td>
<td>Apr. 2013</td>
<td></td>
</tr>
<tr>
<td>(merged company/Furukawa power components div. =&gt; merged company)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales of electric wires: functional integration</td>
<td>Apr. 2013</td>
<td></td>
</tr>
<tr>
<td>(Shin Manden =&gt; Furukawa Elecom)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optical cables: production merger</td>
<td>Jun. 2013</td>
<td></td>
</tr>
<tr>
<td>(Mie + Chiba =&gt; Mie)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper foils: overseas production</td>
<td>Sep. 2013</td>
<td></td>
</tr>
<tr>
<td>(part of Furukawa Imaichi =&gt; Taiwan affiliate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Furukawa Mie + Chiba =&gt; Mie)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head office divisions: streamlining</td>
<td>Dec. 2013</td>
<td></td>
</tr>
<tr>
<td>(reduce 20% of existing functions =&gt; strengthen Group management)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close magnet wires and unprofitable product businesses</td>
<td>Mar. 2014</td>
<td></td>
</tr>
<tr>
<td>(general-use enameled wires: partially close)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Making steady progress, with some even moving forward in terms of maximizing the impact of domestic business concentration to become ¥7 bn. more efficient in FY2015 (than in FY2012)
2. Build the Basis of Sustainable Growth

(2) Develop New, Next-Generation Businesses
Areas Targeted for Next-Generation Businesses

Smarten electric power infrastructure

Build high-capacity communication infrastructure

Contribute to the efficient use of energy resources by combining material technologies

- Superconducting
- Ultra-high voltage
- Electricity storage

- Power distribution automation
- High-performance copper foil
- Nano-technology

- Telecommunications

- Metals

- Polymer

- Photonics

- Electronics

- Automobiles/railway

- Energy

- Industrial

- BMS

- HV rectangular wire
- Aluminum WH

- Optical Engine
- Digital coherent transmission
- Processing fiber lasers

2015

2018

Make green-energy cars

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Contribute to high-capacity communication infrastructure using high-function parts, equipment, and systems based on the most advanced Photonics technology.
Contribute to building an Earth-friendly, smart-energy environment by combining the technologies we developed in the power cable business and high-function components/devices.

- Ultimate low-loss transmission
- High-temperature superconducting cables
- High-temperature superconducting devices
- Contribution to smart grids
- Stable supply of natural energies
- V2H/V2G system
- Power cable
- Connection terminal parts
- Power distribution system
- Packaged battery energy storage system
- Oceanic wind power generation
- Oceanic substation
- Riser cable
- Charger connector cables

30m 275kV superconducting cables
Verification test (Shenyang)
Make Green-Energy Cars

Improve the environmental performance of automobiles by reducing product weight, improving energy efficiency, etc. with our material technologies.

Energy management

Weight reduction

Energy solutions

Higher efficiency, smaller size

Thermal energy control

Thermal storage/heat radiation

Thermal energy reuse module
Mechanism for Creating and Developing New Businesses

**Search for new businesses**
- Expand range of existing business
- Establish winning pattern

**Examine development strategy**
- Examine development strategy
- Objectively assess competitiveness and business potential

**Establish mass production technology through company-wide resource input**
- Immediately achieve full production through flexible resource concentration

**Prioritize investment in development**
- Prioritize investment of development resources in areas where our strengths can be used

**Create and strengthen new businesses**
Strengthened by New Business Development Department
2. Build the Basis of Sustainable Growth

(3) Strengthen the Group’s global management
Introduce Business Unit System (for each strategic business)

- Change the company system and group the businesses that share strategies (incl. affiliates) to strengthen responsibilities and actions
- Improve the quality and effectiveness of strategies through strategic dialogues and accelerate responses to environmental changes

- Promote Group unification with 15 business units (based on strategic businesses)
- With regard to conflicts between management and action, strengthen and assess follow-ups using KPI
- Assess strategies in each business unit and optimize the Group’s resource allocation
Accelerate Group Management through Changes in the Organizational System

New operation

Operation based on strategic business

Customers & Market

Improvement of customer response capability

Cross-sectional sales and marketing organization

Management

Resource allocation

Strategic Business Unit (SBU)

Strategic dialogue

Integrated operation of the entire Group

Reallocations of resources

Ecology & Infrastructure Business
- Power Cable
- Industrial Cable & Power Cable Accessories
- Electric Conductor
- Optical Fiber & Cable Products
- Electronic Appliance Wire & Products
- FITEL Products
- Broadband Products

Electronics & Automotive Systems Business
- Functional Plastics
- Magnet Wires
- Thermal Management Solution & Products
- Memory Disk
- Automotive
- Copper & High Performance Material Products
- Copper Foil
- Copper Tube
Implement group-wide sales/marketing functions to strengthen responses to markets/customers

Focus on proposals for solutions

✓ Propose solutions across business units demanded by customers

Strengthen marketing

✓ Search for Group business opportunities (infrastructure, next-generation automobiles, etc.)
✓ Cooperate with research depts., New Business Development Dept., etc. regarding business development

Streamline sales system

✓ Streamline the sales system, including sales companies, dealers, and agents

Promote global development

✓ Strengthen Group ties to increase overseas sales activities
✓ Promote sales across overseas offices
Exert the Group’s Collective Strength

<table>
<thead>
<tr>
<th>Sales activities across Global Business Development Dept. and Sales/Marketing depts.</th>
<th>Global infrastructure</th>
<th>Energy</th>
<th>Related fields</th>
<th>automobiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish global single management</td>
<td>Group companies</td>
<td>Group companies</td>
<td>OFS</td>
<td>OFS</td>
</tr>
<tr>
<td>Increase sales of original products</td>
<td>VISCAS ultra high voltage</td>
<td>TMS Electrical conducting material</td>
<td>Suzhou Furukawa OPGW</td>
<td>SuperPower promotes practical use of superconducting wires</td>
</tr>
<tr>
<td></td>
<td>Full operation of copper foils for EV</td>
<td></td>
<td>Shenyang Furukawa ultra-high voltage</td>
<td></td>
</tr>
</tbody>
</table>

Efficient use of business bases

Increase high-function magnet wires
Increase sales of batteries
Full operation of copper foils for EV
SuperPower promotes practical use of superconducting wires
FISA Enters OPGW
FISA considers entering SRC
High Ratio of Overseas Sales

Increase primarily in Asia to raise the overseas sales ratio to 50%

2012 forecast
Overseas ¥312 bn. / All ¥760 bn. = 41%

2015 plan
Overseas ¥450 bn. / All ¥900 bn. = 50%

(excl. light metals)
Two non-Japanese Corporate Vice Presidents were hired for the first time. Aside from the business areas of the affiliates managed by each of them, they will make specific proposals for the broad overseas development of our Group, the establishment of the Group’s global system, and trade area expansion, and will exchange opinions with the other directors.

Foad Shaikhzadeh
President, FISA, Brazil
Graduated from the Escola Politécnica University (electricity) in 1978

Timothy Murray
President, OFS Fitel, LLC., USA
Earned a doctorate in metal organic compounds from Princeton University in 1978
3. Improve Financial Structure
Income statement for three years later: ensure final profit

<table>
<thead>
<tr>
<th>(¥ billion)</th>
<th>2012 forecast</th>
<th>2012 forecast (application of equity method to light metals)</th>
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<td>+2.6%</td>
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<tr>
<td>Net Income</td>
<td>2.0</td>
<td>2.0</td>
<td>20.0</td>
<td>+18.0</td>
</tr>
</tbody>
</table>

Specs

<table>
<thead>
<tr>
<th>Specifications</th>
<th>2012</th>
<th>2015 medium term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign exchange (dollar to yen)</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>Copper (yen/kg)</td>
<td>631</td>
<td>800</td>
</tr>
<tr>
<td>Crude oil (Dubai, dollars/barrel)</td>
<td>115</td>
<td>108</td>
</tr>
</tbody>
</table>
Balance sheet for three years later: system responsive to changes

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2015</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets</strong></td>
<td>826.5</td>
<td>700</td>
<td>-126.5</td>
</tr>
<tr>
<td><strong>Equity capital</strong></td>
<td>164.3</td>
<td>184</td>
<td>+19.7</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>19.9%</td>
<td>26.3%</td>
<td>+6.4%</td>
</tr>
<tr>
<td><strong>Interest-bearing debts</strong></td>
<td>325</td>
<td>240</td>
<td>-85</td>
</tr>
<tr>
<td>Investment, etc. (for 3 yrs.)*</td>
<td>92.5</td>
<td>90</td>
<td>-2.5</td>
</tr>
<tr>
<td>R&amp;D (for 3 yrs.)*</td>
<td>48.6</td>
<td>52</td>
<td>+3.4</td>
</tr>
</tbody>
</table>

* Excludes light metals
Three-year cash flow (¥ billion)

Operating CF 120; Investing CF -90; Financing CF -30

Target after three years: Improve asset efficiency

<table>
<thead>
<tr>
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<th>2012 year-end forecast</th>
<th>2015 medium term</th>
<th>Change</th>
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<td>D/E ratio</td>
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<td>1.3</td>
<td>-0.7</td>
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<tr>
<td>ROA (ordinary)</td>
<td>2.1%</td>
<td>5.7%</td>
<td>+3.6%</td>
</tr>
<tr>
<td>Total asset turnover</td>
<td>1.1</td>
<td>1.3</td>
<td>+0.2</td>
</tr>
</tbody>
</table>

Dividend policy

We have had a basic policy of paying stable dividends, taking into account the trends of future earnings and our future business development. We will continue our dividend payment based on this policy for the period of the Medium-Term Management Plan 2015.
To coincide with the establishment of a new groupwide global management framework, we have chosen to use our “Yamaichi” logo*, which the Furukawa Group’s founder Ichibe Furukawa first registered as a trademark in 1877, to portray a traditional, Japanese image to the rest of the world. We have also changed the font of the Group name to a new one to express our commitment to society to flexibly meeting modern needs.

* The logo was created by Ichibe Furukawa when he decided to focus on the mining industry.
Thank you for your attention.
Forward-Looking Statements

Projections of future sales and earnings in these materials are forward-looking statements. Management offers these projections in good faith and on the basis of information presently available. Information in these statements reflects assumptions about such variables as economic trends and currency exchange rates.

Forward-looking statements incorporate known and unknown risks as well as other uncertainties that include, but are not limited to, the following items.

- Economic trends in the U.S., Europe, Japan and elsewhere in Asia, particularly with regard to consumer spending and corporate capital expenditures
- Changes in exchange rates of the U.S. dollar, euro, and Asian currencies
- The Furukawa Electric Group’s ability to respond to rapid advances in technology
- Changes in assumptions involving financial and managerial matters and the operating environment
- Current and future trade restrictions and related matters at foreign countries
- Changes in the market value of securities held by the Furukawa Electric Group

Due to the above factors, actual sales, earnings, and other operating results may differ significantly from the figures in the plans contained in these materials. In addition, following the release of these materials, Furukawa Electric Group assumes no obligation to publicly announce any revisions to forward-looking statements in these materials.

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