Business Strategy of Industrial Solutions

August 18, 2010
Fuji Electric Holdings Co., Ltd.
1. Business Outline

2. Market Trends

3. Business Policies

4. Growth Strategies

5. Performance Trends / Targets
Contributing to energy saving and improved productivity through safe and environmentally friendly solutions born out of fusing Fuji Electric’s quality products and plant technologies

**Industrial facilities**
- Proposing optimal power supplies and power receiving and distribution substation equipment for industrial facilities
- Providing improved reliability by offering maintenance, replacement, etc.

**Drive/Control**
- Proposing energy saving and rationalization solutions for production and manufacturing facilities
- Providing improved reliability by offering maintenance, replacement, etc.

**FY2009 Consolidated Net Sales ¥108.0 billion**

- Systems/Plants: 88%
- Industrial facilities: 56%
- Drive/Control: 32%
- Measuring instruments: 12%
- Sensors: 12%
- Components: 12%
Major Products

Providing environmentally friendly products and energy saving products, as well as those that are safe and secure

Drive/Control

- Plant control systems
- Plants utilizing electrical power
- High-voltage inverters (No.1 domestic share)

Major fields: all areas of the iron and steel, chemical plants, and food and drug industries, etc.

Measuring instrument / sensors

- Measuring instruments
- Gas analyzers (No. 1 domestic share)

- Various sensors
- Temperature adjustment instruments

Industrial facilities

- Electronic furnace power supplies
- High-capacity rectification equipment (No.2 global share)
- Heating units for induction furnaces
- High-voltage drop/dip compensators
- Molded-case transformers (No.1 domestic share)

Major fields: all areas of the iron and steel, smelting and refining of non-ferrous metals, and chemical plant industries, etc.
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Size of the Environment and Energy Saving Market

Projected change of size of the environment and energy saving market (Domestic)

Market size

<table>
<thead>
<tr>
<th>Year</th>
<th>¥ trillion</th>
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<tbody>
<tr>
<td>2000</td>
<td>3.1</td>
</tr>
<tr>
<td>2010</td>
<td>10.6</td>
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<tr>
<td>2020</td>
<td>15.6</td>
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Rate of average annual growth of the environment and energy saving market

2000 → 2020: 8.4%

Effective utilization of resources
- Water and sewerage treatment equipment
- Dust collection and stream sanitation
- Measurement and analysis of harmful substances
- Environmental management systems

Technologies and products to lower environmental impact and prevent environmental pollution
- Energy-saving consulting
- ESCO projects
- Environmentally friendly materials
- New energy (solar, wind power), energy saving, and energy management

* Compiled by Fuji Electric based on data released by various ministries and other government offices
Market Trends Related to Overseas Operations

Rapid growth of production in China and India

Overseas capital investment by domestic companies increased for the first time in 3 years

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**Crude steel production in various countries**

- China
- Europe
- Japan
- U.S.
- India
- Korea

- **Source:** Compiled by Fuji Electric based on *The Industrial Structure Vision 2010* released by the Ministry of Economy, Trade and Industry.

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**Overseas capital investment**

<table>
<thead>
<tr>
<th></th>
<th>FY2009 (actual)</th>
<th>FY2010 (plan)</th>
<th>YoY rate 10/09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>Percent of total investment</td>
<td>Amount</td>
<td>Percent of total investment</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,315.3</td>
<td>64.3</td>
<td>1,893.3</td>
</tr>
</tbody>
</table>


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**Capital investment in fiscal 2010 (Compared with fiscal 2009)**

- **Japan**
- **Overseas**
- **Manufacturing**
- **Autobiles**
- **Electrical machinery**
- **Chemistry**
- **Non-ferrous metals**

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Business Policies

**Basic policy**

Aiming to realize a low-carbon society and to improve customer satisfaction; we will contribute to environmental friendliness, energy saving, and improved production efficiency by integrating quality products, engineering, control technologies, and maintenance.

**Key measures**

- **Enhancing factory solutions**
  
  ⇒ Reduce plant energy consumption and improve production efficiency by consolidating power electronics, measuring instruments, and control systems.

- **Expanding overseas operations**
  
  ⇒ Expand the plant business by focusing on China and Asia, and introducing quality products (high-capacity rectification equipment, high-voltage inverters, etc.)
Business Domain

Optimizing all areas of factory operation = factory solutions

Domestic

- Growing need for energy saving and environmental measures geared toward creating a low-carbon society
- Revised Energy Saving Law, improved CSR
  ⇒ Increased capital investment related to energy saving and the environment

Overseas

- Focused on China and Asia
  - Reinforced production facilities
  - Enhanced compatibility with energy saving and the environmental friendliness
  ⇒ Increased demand for industries related to materials
  ⇒ Increased introduction of environmentally friendly products (Government measures)

Key high-value-added products

- Highly reliable systems/technologies
- Plant engineering that has achieved strong results
- Maintenance and services that provide security

Core technologies

- Power electronic technologies
- Measuring/control technologies
- Energy-saving technologies
- Induction heating technologies
Business Strengths

Highly reliable systems/technologies
- Power electronics and energy-saving technologies
- Control systems for iron and steel plants
- Information/measuring systems
- Power monitoring systems

Maintenance and services that provided security
- 24 hour call center
- Plant safety/maintenance
  - Lifespan evaluation
  - Safety consulting

Key high-value-added products
- High-voltage inverters
- Large-scale rectifier facilities
- Industrial electric heating
- Mold-case transformers
- Measuring equipment
- Controllers

Develop comprehensive solutions geared toward the production and manufacturing facilities of factories through the integration of power electronics and measuring and control technologies.

Provide improved environmental friendliness, productivity, safety, and security

Plant engineering that has achieved strong results
- Project management
- EPC
- Field engineering
- Energy management
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Growth Strategy 1: The Concept of Factory Solutions

Proposing solution packages that realize the overall optimization of operations
Comprehensively providing production management, quality improvement, and energy-saving PDCA: Plan (Clarify) – Do (Analyze) – Check - Act

Clarify, analyze, and optimize supply and demand related to energy
(Solution package)

Clarify supply and usage of energy
Integration of energy monitoring

Company office
Network
Factory office

Electrical power
Steam/Gas
Heat/Electrical power/Steam
Water/Electrical Power
Air
- Power distribution equipment
- Boiler
- Power generation facilities
- Production facilities
- Water provision facilities
- Water drainage facilities
- Compressors
### Overview of Factory solutions—energy-saving business model

<table>
<thead>
<tr>
<th>Steps</th>
<th>Measure</th>
<th>Analyze</th>
<th>Check</th>
<th>Act</th>
</tr>
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<tbody>
<tr>
<td>Customer profit</td>
<td>• Clarification of energy consumption</td>
<td>• Compliance with laws and improved corporate value</td>
<td>• Simplification of reports</td>
<td>• Reduction of energy consumption (energy saving)</td>
</tr>
<tr>
<td>Value provided by the Company</td>
<td>Measuring instruments</td>
<td>Analytical systems</td>
<td>Support for compiling reports</td>
<td>Energy-saving facilities</td>
</tr>
<tr>
<td>Overall business model</td>
<td>Offer one-stop support ranging from sales of measuring and analytical instruments to introduction of energy-saving facilities (Whole-factory energy-saving solutions)</td>
<td>Provide the optimal business model matched to customer needs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual business model</td>
<td>Clarification</td>
<td>Evaluation/Consulting</td>
<td>Energy-saving facilities</td>
<td></td>
</tr>
<tr>
<td>Strengths of the Company</td>
<td>• Possesses competitive products ranging from measuring instruments to those used to act on issues uncovered</td>
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**Growth Strategy 1: Factory Solutions—Energy-Saving Business Model**

Provide solutions that maximize customers’ profit through the cycle of Measure - Analyze - Check - Act
Growth Strategy 2: Strategies to Expand Factory Solutions

- Expand overseas businesses based on domestic performance
- Strengthen whole-factory solutions (Facilities + clarification and evaluation packages)
- Strengthen the business of clarifying and evaluating energy consumption (Develop packages and new solutions)
- Develop the overall business model for domestic factories
- Develop factory solutions for overseas factories
- Systems/equipment for domestic factories
- Systems/equipment for overseas factories
- Introduced factory solutions into Fuji Electric’s model factories

- 2010
- 2011
- 2012-2015
- Solidify business model
- Expand business
- Increased sales

Increased sales
Growth Strategy 2: Expand overseas operations

Bolstering overseas plants focused on China and Asia

Key initiatives:

- Accelerate overseas expansion by leveraging quality products and plants
  - Sales of high-capacity rectification equipment (Aluminum refining, soda electrolysis field)
  - Expand sales of high-voltage inverters in China and Asia
- Develop factory solutions business overseas

Target Regions:

- China
- Asia
- Middle East

Key strategic areas:

- Sales offices
- Production bases
**Growth Strategy 2:**
Expand Overseas Operations (High-Capacity Rectification Equipment)

**Expanding sales of high-capacity rectification equipment**

- **Demand for aluminum** expected to increase greatly, particularly in China
- **Large-scale projects and demand to replace aged facilities** expected to increase due to the recovering performance of major aluminum smelters

**Share of S-Former (1990–2009)**
- **Capacity = 45.6GW**
- **Fuji** 26%
- **Areva** 12%
- **ABB-Siemens** 55%
- **Friem** 3%
- **Robicon** 3%
- **Buffalo** 1%

**Strengths of the Company**
- Capable of manufacturing equipment with high capacity
  - World’s highest capacity for a single unit
- Impressive delivery performance
  - Delivers to countries around the world
  - Highly evaluated for local process management
- Highly reliable equipment

**Estimated global demand for aluminum metals**

Source: Japan Aluminum Association (data as of June 23, 2010)

**Large-scale capital investment**
for overseas facilities predicted for the next several years

- **Australia**—High-capacity rectification equipment for aluminum smelter
- **Japan**
- **USA**
- **Europe**
- **China**
- **India**
- **Other Asia regions** (ASEAN+Korea)
- **Brazil**
- **Others**
Growth Strategy 2: 
Expand Overseas Operations (High-Voltage Inverters)

Accelerate the expansion of the overseas factory solutions business by utilizing high-voltage inverters as a key product.

(Targets)
- Asian regions, particularly China
- Improving the energy-saving qualities of high-voltage generators for facilities for the iron and steel, cement, petroleum and gas industries

(Strength of the Company)
- Products that do not burden power supplies and electric motors
  - The Company’s proprietary control methods limit harmonics and power surges
- Advanced power electronics technologies
  - Use of IGBTs manufactured in-house

(Measures to expand operations)
- Bolster production at Chinese factories (Wuxi Fuji Electric)
- Enhance sales and engineering services

<Change in markets by industry>
- Iron and steel
- Petroleum gas
- Power generation
- Mining
- Cement
- Other

<Change in markets by region>
- Others
- Japan
- Asia
- China

Source: IMS Research 2010
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Performance Trends / Targets

FY2011 Medium-term Management Plan
Aim for net sales of ¥110.0 billion and ratio of operating income to net sales of 6%

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<tbody>
<tr>
<td></td>
<td>108.0</td>
<td>99.0</td>
<td>110.0</td>
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<table>
<thead>
<tr>
<th>Ratio of Operating Income</th>
<th>FY2009 Actual</th>
<th>FY2010 Forecast</th>
<th>FY2011 Plan</th>
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<tr>
<td></td>
<td>4%</td>
<td>2%</td>
<td>6%</td>
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