

# Segment Overview

## New Segments for Developing Energy-Related Businesses

Striving to create a system for developing energy-related businesses utilizing energy technologies based on electricity and thermal energy, Fuji Electric changed its segments in April 2012.

As part of this change, we established two new segments: the Power and Social Infrastructure segment and the Food and Beverage Distribution segment. The Power and Social Infrastructure segment handles all aspects of our smart community operations, from power generation to the supply of electricity to users. The Food and Beverage Distribution segment combines store distribution and vending machine operations to create new businesses by fusing electricity technologies with heating and cooling technologies to develop new products. In addition, the ED&C Components and Power Electronics segments were combined into a single segment to generate synergies and strengthen these businesses. Meanwhile, the Industrial Systems segment's name was changed to the Industrial Infrastructure segment, but the segment remained otherwise unchanged. Together with the Electronic Devices segment, this makes for a total of five segments.

### Subsegment / Main Products

#### Power and Social Infrastructure

<b>Power Generation</b>	Thermal / Geothermal / Hydraulic power generation
	Nuclear power-related equipment
<b>Social Infrastructure</b>	Energy management systems
	Substation equipments
	Watt-hour meters
	Radiation monitoring systems
	Transport systems

#### Industrial Infrastructure

<b>Industrial Plants</b>	Industrial drive systems
	Plant control systems
	Measurement instruments
<b>Facilities</b>	Industrial power supplies
	Power receiving and distribution substation equipment for industry

#### Power Electronics

<b>Drive</b>	Inverters / Servo systems
	Motors
	EV systems
<b>Power Supply</b>	Uninterruptible power supply systems (UPSs)
	Power conditioners (PCSs)
<b>ED&amp;C Components</b>	Power distribution and control equipment

#### Electronic Devices

<b>Semiconductors</b>	Power semiconductors
	Photoconductive drums
	Solar cells
<b>Magnetic Disks</b>	Magnetic disks

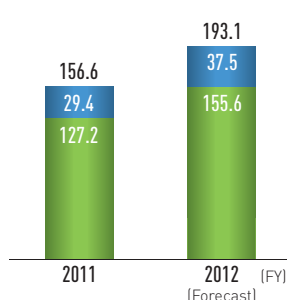
#### Food and Beverage Distribution

<b>Vending Machines</b>	Food and beverage vending machines
<b>Store Distribution</b>	Retail distribution systems
	Showcases
	Currency handling equipment

### Net Sales

■ Japan ■ Overseas

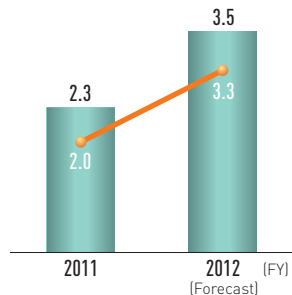
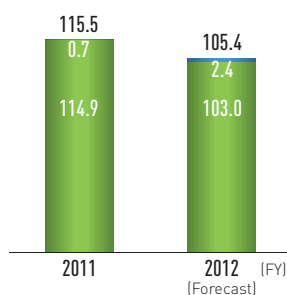
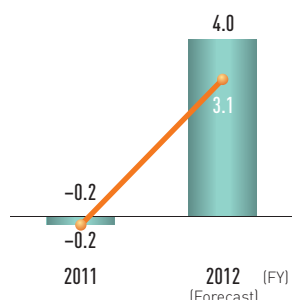
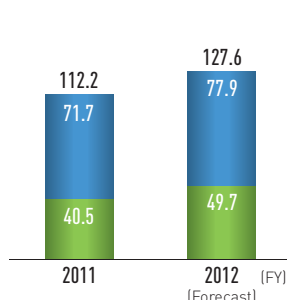
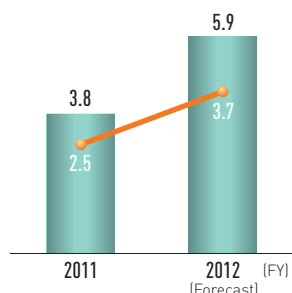
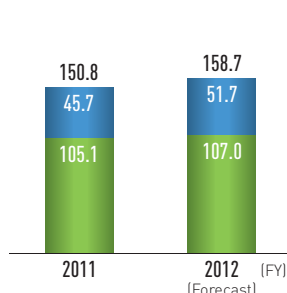
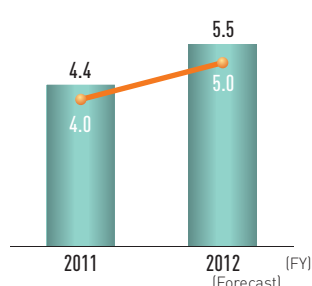
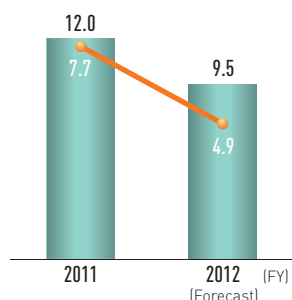
(Billions of yen)



### Operating Income (Loss) / Ratio of Operating Income (Loss) to Net Sales

(Billions of yen)

(%)



### Three-Year Rolling Plans

(Fiscal 2012-2014)

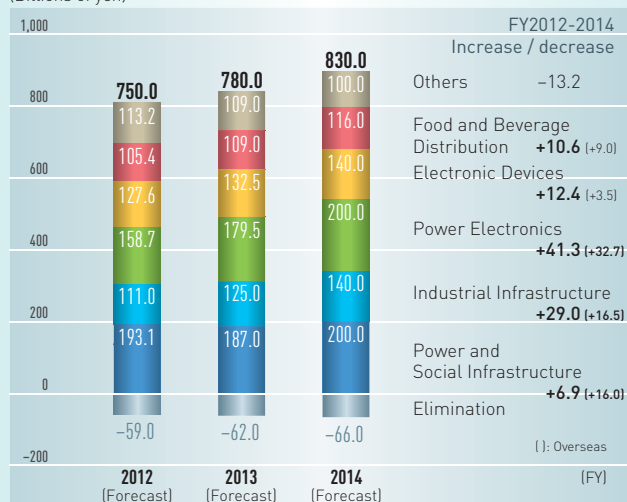
The Company has developed the target for fiscal 2014 of achieving net sales of ¥830.0 billion, 11% higher than fiscal 2012's levels, and operating income of ¥35.0 billion, 52% higher. We will work vigorously over the three-year period from fiscal 2012 to fiscal 2014 to meet these goals.

Looking at different business segments, we will target higher sales in infrastructure businesses (Power and Social Infrastructure and Industrial Infrastructure segments) by leveraging products such as power electronics that utilize the Company's power semiconductors. Furthermore, in the Power and Social Infrastructure, Industrial Infrastructure, and Power Electronics segments, we plan to expand overseas sales to a significant degree.

In addition, we expect all segments to see operating income increases as the Electronic Devices and Power Electronics segments, which experienced deterioration in operating results during fiscal 2011, will record substantial improvements.

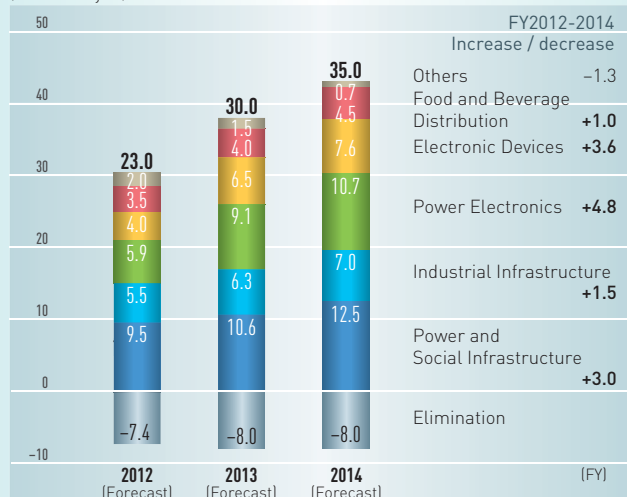
### Net Sales

(Billions of yen)



### Operating Income

(Billions of yen)



# Power and Social Infrastructure



## A Look at the Segment

This segment is divided into the power generation business and the social infrastructure business. The power generation business supplies highly efficient and eco-friendly thermal and geothermal power systems. The social infrastructure business contributes to the realization of smart communities by helping optimally control energy using smart meters, new energy sources, and grid connection and distribution control systems.

Our deliveries of equipment for generating geothermal power—a source of renewable energy—over the past 10 years equate to approximately 40% of all deliveries over that period, representing the leading share in the global market. In this manner, we are helping meet global energy demand.

## FY2011 Major Initiatives

In the power generation business, demand for thermal power was strong as electricity demand expanded around the world. Against this backdrop, the Company pushed forward with research ventures geared toward improving the efficiency of steam turbines and turbine generators. Sales efforts targeting increased orders progressed simultaneously. One major accomplishment during fiscal 2011 was the receipt of an order for a large-scale biomass power generation plant in the United States, a strategically important region. This plant will be among the largest in the country.

In the social infrastructure business, we stepped up

production of radiation measurement equipment in response to the rise in concern for the safety of living environments that followed the Great East Japan Earthquake. In order to strengthen our systems for providing these products, we established a radiation equipment calibration and testing base in Fukushima Prefecture. At the same time, we are advancing verification tests for smart community projects in which the Company is participating with the aim of controlling and optimizing electricity supply and demand balances. These projects are located in Kitakyushu City, Fukuoka Prefecture, and other locations.

## FY2012 Policies and Strategies

- Enter into domestic combined cycle thermal power market
- Commence capital participation in U.S. geothermal power projects
- Reenter substation equipment business
- Address radioactive waste material treatment and other post-earthquake reconstruction demand

In the power generation business, global electricity demand is expected to continue rising as a result of such factors as population growth. In this environment, the market for thermal power, which accounts for the largest portion of total global generation capacity, is expected to expand by an average of 2% per year up until 2035. Likewise, the market for renewable energy is projected to expand by an average of 9% per year over the same period.

In light of these circumstances, Fuji Electric is planning its full-fledged entry into the domestic market for highly efficient combined cycle thermal power generation systems that utilize gas and steam turbines. At the same time, we view the progressive deregulation in this field as a chance for us to advance into the domestic geothermal market as well.

Overseas, we will expand our thermal power business into the Near and Middle East and South America. In our geothermal power business, we will target increased orders from the growing markets of Central and South America as well as Africa. We are also expanding operations in the U.S. market, and in April 2012 concluded an agreement to commence capital participation in a geothermal project there.

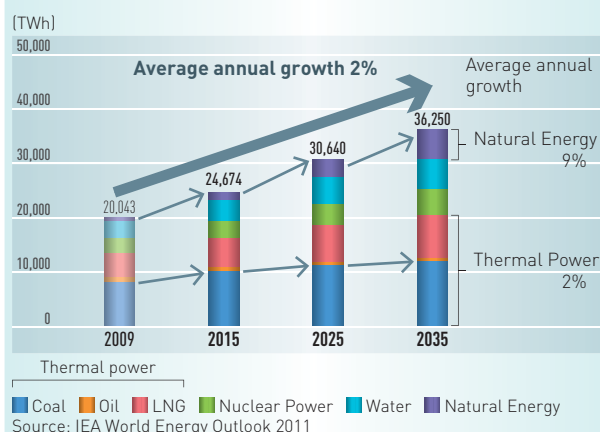
In the social infrastructure business, we are anticipating the accelerated development of smart communities as the realization of more efficient energy usage and low-carbon societies is pursued. We are thus aiming to commercialize our smart communities as quickly as possible. To this end, we are leveraging the energy management and operational knowledge gained through verification tests, conducted in Kitakyushu City and on remote islands in Okinawa Prefecture and Kagoshima Prefecture, and expanding smart meter development and provision activities.

(Billions of yen)

	FY2011	FY2012 Forecast	Change
Net Sales	156.6	193.1	+36.5
(Overseas Sales)	29.4	37.5	+8.1
Operating Income	12.0	9.5	-2.5

We believe that these efforts will help us accelerate the expansion of this business. Furthermore, following the dissolution of our merger agreement with Japan AE Power Systems Corporation in April 2012, this company's transformer and power distribution equipment operations were transferred to the Company, marking our reentry into the substation equipment business. This will enable us to develop a more comprehensive business spanning from power generation to the supply of electricity to users. We are also redoubling our efforts to contribute to the post-Great East Japan Earthquake reconstruction effort by treating radioactive waste.

## Global Electricity Demand Forecasts



# Industrial Infrastructure



## A Look at the Segment

By combining power electronics and control technologies, this segment contributes to improving the productivity and reducing the energy usage of factories and other production facilities.

Businesses in this segment are expanded by leveraging a rich foundation consisting of various measurement and control technologies as well as expertise regarding the creation of a wide range of plant systems, including industrial drive, measurement instruments, and plant control systems. This segment also supplies several highly competitive products including our high-capacity rectifiers, which hold the No. 2 share in the global market and are used in aluminum smelting, and our heating units for induction furnaces, which hold the No. 1 share in the domestic market.

## FY2011 Major Initiatives

In Japan, the Great East Japan Earthquake disrupted the production operations of many customers by damaging production bases or forcing them to halt the operation of their facilities. To help such customers rebuild their production operations, we prioritized reconstruction support initiatives throughout fiscal 2011. We also expanded facility upgrade initiatives as well as after-sales services such as maintenance and repairs.

Overseas, capital investment related to steelmakers and chemical plants is accelerating. Such investments are

being focused on China and other parts of Asia, where we are reinforcing our network of engineering bases as well as bolstering staff. These are just a few aspects of our efforts to reinforce systems for expanding overseas businesses. In the United Arab Emirates, we received an order for the world's largest aluminum electrolytic rectifying facilities to be installed in one of the most massive aluminum smelting plants in the world.

## FY2012 Policies and Strategies

- Strengthen efforts to expand overseas operations
  - Reinforce network of engineering bases in Asia
  - Collaborate with overseas companies and conduct merger and acquisition (M&A) activities
  - Increase orders for plant systems from overseas steelmakers

The Company is placing particular emphasis on manufacturers, such as those that make steel and chemicals. Over the next three years, capital investment in these areas is expected to grow an average of 9% per year in Asia and 6% a year in China. In Asia and other such growth regions, the Company is strengthening its sales systems and reinforcing its engineering networks. At the same time, we are advancing local design and production initiatives while also establishing collaborative relationships with local companies. In these ways, we are targeting increased orders and higher sales.

Investment by Japanese companies is increasingly shifting overseas, due in part to the impacts of the strong yen on exchange rates and to electricity supply issues. As such, capital investment in Japan is primarily directed toward maintaining, repairing, or updating facilities, and therefore demand in fiscal 2012 is expected to be in line with the previous fiscal year. In this environment, we intend

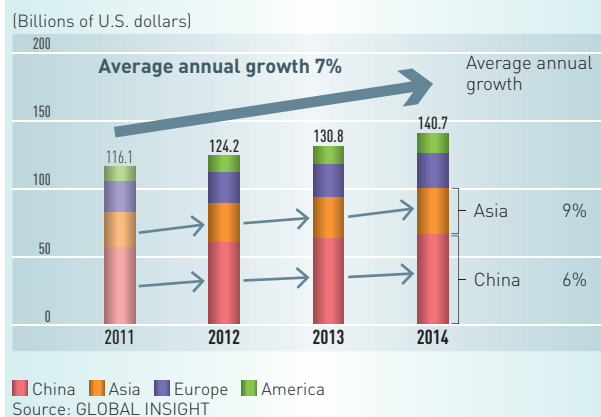
(Billions of yen)

	FY2011	FY2012 Forecast	Change
Net Sales	110.5	111.0	+0.5
(Overseas Sales)	25.8	29.3	+3.5
Operating Income	4.4	5.5	+1.1

to leverage our extensive delivery track record to capture capital investment demand related to efficiency improvement and energy savings. To this end, we are developing and providing products suited to partial facility upgrades and also advancing into the markets for eco-friendly and energy-efficient products by soliciting our environmental impact analyzing apparatuses and other products that lead to improvements in environmental performance.

Furthermore, we are optimizing the placement of overseas engineers and strengthening service business systems, while reducing costs and instituting other initiatives targeting improved profitability.

## Forecasts for Investments in Steel, Chemicals, and Other Manufacturing Fields



# Power Electronics

## A Look at the Segment



This segment is divided into the drive business, in which we deal in inverters, motors, and systems for electric vehicles (EVs); the power supply business, which includes uninterruptible power supply systems (UPSs) and power conditioners; and the electrical distribution and control (ED&C) components business. The core of this segment is Fuji Electric's power electronics technologies, and the segment offers a diverse lineup of products that facilitate efficient electricity usage and stabilize electricity quality.

When combined with motors, inverters are key components in a wide range of equipment that help meet energy-saving needs. Through the provision of these inverters, we are contributing primarily to the construction of industrial systems. In addition, this segment supplies products that help make society safer and more secure, such as UPSs, which provide a stable supply of electricity even during power outages, and ED&C components, used in power distribution boards and various equipment.

## FY2011 Major Initiatives

In the drive business, demand for energy-saving measures increased throughout the year, particularly overseas. Aiming to capture this demand, we launched new inverters for use in air conditioning systems and water treatment facilities in Asia and Europe and also introduced new highly cost-competitive inverters that we will market to emerging nations. At the same time, we released a new addition to our lineup of Quick Chargers for EVs. This new low-capacity charger can be installed in various different locations, adding new depth to our Quick Chargers lineup.

New products introduced in the power supply business included a highly efficient UPS that we will market for use

in data centers and telecommunications infrastructure, both of which are experiencing growth in demand. Equipped with a new 3-level insulated gate bipolar transistor (IGBT), this UPS realizes power conversion efficiency of 97%.

The ED&C components business, meanwhile, saw the release of new ultra-compact magnetic contactors and breakers compatible with high-voltage DC current. These components are not only compatible with DC electricity distribution, but also help make equipment more compact.

## FY2012 Policies and Strategies

- Comprehensively reduce costs in drive business (inverters / motors)
- Expand overseas sales of power supplies (UPSs / power conditioners)
- Accelerate launch of new ED&C component products

In fiscal 2012, demand for products related to energy savings and new energies is expected to grow around the world. As such, the market for power electronics in China, which features the world's largest market for these products, is expected to grow an average of 12% per year over the next three years. Similar growth will be seen in other Asian markets as well.

Such growth markets will be our primary targets in the drive business. Striving to increase overseas sales in this business, we will launch new products, including those that meet international specification standards and those with high functionality. We will also step up local design and production efforts so that we may provide different regions with products that meet their differing expectations in terms of quality and price. Improving profitability will be another focus area, and we will therefore work to cut costs by reducing material costs through global procurement.

In the power supply business, we will enhance our lineup of UPSs for Chinese and Asian markets, while strengthening production and sales systems. In addition, by introducing new high-capacity power conditioners for

mega solar power generation systems, we will work to expand sales in the growing new energy market.

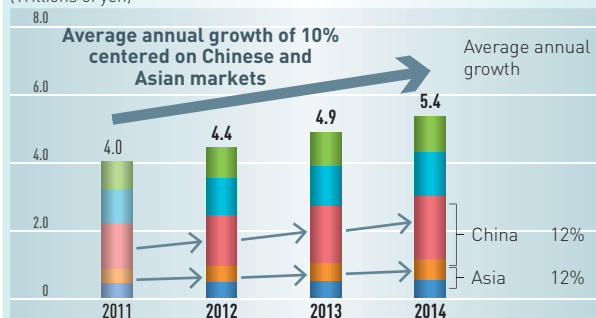
Initiatives in the ED&C components business will include strengthening supply chain management and expanding local procurement at production bases in China. We will also develop and introduce new products targeting Chinese and Asian markets. In these ways, we will strive to boost overseas sales in this business.

(Billions of yen)

	FY2011	FY2012 Forecast	Change
Net Sales	150.8	158.7	+7.9
(Overseas Sales)	45.7	51.7	+6.0
Operating Income	3.8	5.9	+2.1

## Power Electronics Market Scale Forecasts

(Trillions of yen)



Japan Asia China  
EMEA (Europe, the Middle East and Africa) The Americas  
Fuji Electric's estimates

## Electronic Devices



### A Look at the Segment

Power semiconductors are the core business of this segment, and we are developing other operations to which semiconductor manufacturing technologies can be applied, such as those related to magnetic disks, photoconductive drums, and solar cells.

A representative example of our power semiconductor products would be our IGBTs, for which we hold the leading global share. These devices play an important role in power conversion and contribute to energy savings and efficiency in a wide range of fields including industrial fields relating to inverters, machine tools, and robots; hybrid electric vehicles (HEVs) and other automotive application fields; and wind power, solar power, and other new energy fields.

Furthermore, we are developing next-generation silicon carbide (SiC) power devices in our quest to make our power electronics products smaller and more energy-efficient.

### FY2011 Major Initiatives

In the semiconductor business, we developed and subsequently introduced 6th generation "V-Series" IGBTs. With industry-leading levels of loss reduction, these state-of-the-art modules can address the energy-saving needs present in industrial fields and lead to the creation of smaller, more energy-efficient power electronics. Also, we refitted our Yamanashi Factory, which formerly was used

for magnetic disk production, to conduct wafer processing for semiconductors. This has enabled us to disperse risks related to earthquakes and electricity shortages.

Business restructuring initiatives progressed in the magnetic disk business as we consolidated development, production, and sales bases in Malaysia, and the business turned a profit on a full-year basis.

### FY2012 Policies and Strategies

- Strengthen power semiconductor business
  - Comprehensively reduce costs
  - Expand automotive semiconductor operations
  - Increase overseas production of industrial IGBTs (Shenzhen Factory in China)

In regard to power semiconductors, as energy-saving demand grows around the world, the market for industrial and automotive IGBTs is forecasted to grow by an average of 11% per year for the next three years, and the market for semiconductors for automotive applications will grow by an average of 10% per year over the same period.

In this area, the Company is placing particular emphasis on IGBTs, and is redoubling development ventures to create modules for use in automobiles, such as EVs and HEVs, and in wind and solar power generation systems. These modules will be marketed in Japan, China, and Europe, where we are constantly targeting higher sales. We will also introduce low-capacity IGBTs for consumer products. At the same time, we are bolstering our lineup of high-capacity products and will begin mass production of SiC products.

In July 2012, the Company acquired the Tsgaru Factory of Renesas Northern Japan Semiconductor, Inc., allowing us to further expand our business portfolio by taking over this factory's automotive application product operations. Furthermore, we will commence operation of a back-end process factory in Shenzhen, China, thus enabling us to develop a system for providing products with

(Billions of yen)

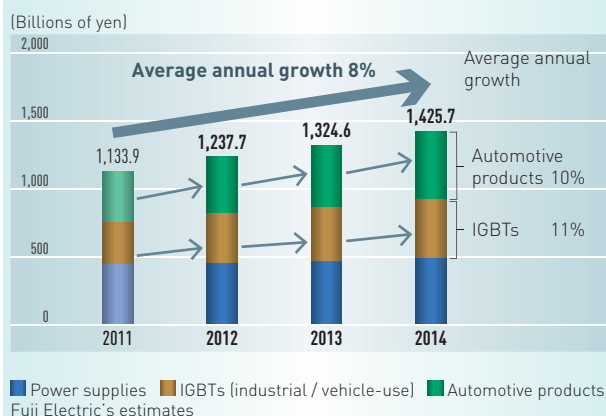
	FY2011	FY2012 Forecast	Change
Net Sales	112.2	127.6	+16.7
(Overseas Sales)	71.7	77.9	+6.2
Operating Income (Loss)	-0.2	4.0	+4.2

the specifications of this market's demands, which we believe will lead to the Company achieving higher sales in this country. In addition, we are endeavoring to boost the profitability of this business through comprehensive cost-reduction measures including the expansion of overseas component procurement.

We are working to expand our photoconductive drum business by enhancing our lineup of products for use in color printers and multifunction printers, which are seeing strong growth in demand in emerging nations.

For magnetic disks, we will leverage the integrated development, production, and sales system in Malaysia to expand the business in a manner that focuses on profitability by providing high-quality, low-cost products.

### Power Semiconductor Market Scale Forecasts



# Food and Beverage Distribution



## A Look at the Segment

The vending machines supplied by this segment hold the top share in the domestic market. The segment also provides equipment, such as refrigerated and freezer show-cases and currency handling equipment, and energy-saving store systems. With this diverse lineup, we are adding an extra degree of safety, security, and energy savings along the route of transporting food from producers to consumers.

Utilizing our core heating and cooling technologies, mechatronics technologies accumulated through vending machine and currency handling equipment operations, and system technologies fused with information technologies (IT), we provide optimal products and solutions in the field of food distribution.

## FY2011 Major Initiatives

In the vending machine business, we worked to respond to the drive for electricity savings by introducing new hybrid heat pump vending machines, which realize electricity savings of up to 40% compared to last year's models, and continued to encourage customers to upgrade to eco-friendly vending machines. Also, we worked to restructure the business to boost profitability by better addressing the demand for energy consumption reduction and improving efficiency. To this end, we consolidated domestic production into the Mie Factory, shifting away from the previous two factory system that included both the Mie Factory and

the Saitama Factory, and pursued cost reductions by starting up new highly efficient production lines.

In fiscal 2011, there were significant rises in investments in the food distribution industry to recover from the impacts of the Great East Japan Earthquake and to establish new convenience stores and renovate existing ones. In the store distribution business, we worked to expand orders for refrigerated and freezer showcases to be used in convenience stores, while also cutting costs to strengthen business foundations.

## FY2012 Policies and Strategies

- Expand vending machine business in China (No. 1 share)
- Expand eco-store business in Chinese and Asian markets
- Develop new businesses utilizing vending machine heating and cooling technologies

The food distribution market in Japan is characterized by a high saturation of vending machines. However, in the focus regions of China and other Asian countries, there is still significant room for growth in this market, which is expected to grow by an average of 68% per year over the next three years. At the same time, the domestic store distribution market is expected to grow by an average of 7% over this period, while average growth rates in China and other parts of Asia will be 12%.

Amidst this strong growth, we anticipate that replacement demand for eco-friendly vending machines will continue rising in Japan. In capturing this demand, we will target higher sales of our high-value-added products by striving to make eco-friendly vending machines the industry standard. Particular focus will be placed on our hybrid heat pump vending machines, which boast industry-leading levels of energy efficiency. In the Chinese market, demand for vending machines is expected to grow as personal income rises and people seek higher levels of convenience. Fuji Electric will work to maintain its No. 1 share in this market by introducing vending machines that meet the specifications sought after in this market and expanding sales through cooperation with local operators.

(Billions of yen)

	FY2011	FY2012 Forecast	Change
Net Sales	115.5	105.4	-10.1
(Overseas Sales)	0.7	2.4	+1.7
Operating Income	2.3	3.5	+1.2

In the store distribution business, we will continue to advance measures to reduce costs associated with our refrigerated and freezer showcases to further stabilize business operations. At the same time, we will solidify foundations for our eco-store business in the growing markets of China and other Asian countries. In addition, we will fuse our heating and cooling technologies with our systems technologies to create new businesses that provide safety, security, and energy savings throughout the food distribution process, spanning from producers to consumers.

## Food Distribution Market Scale Forecasts

