

# Business Strategy of Social Solutions

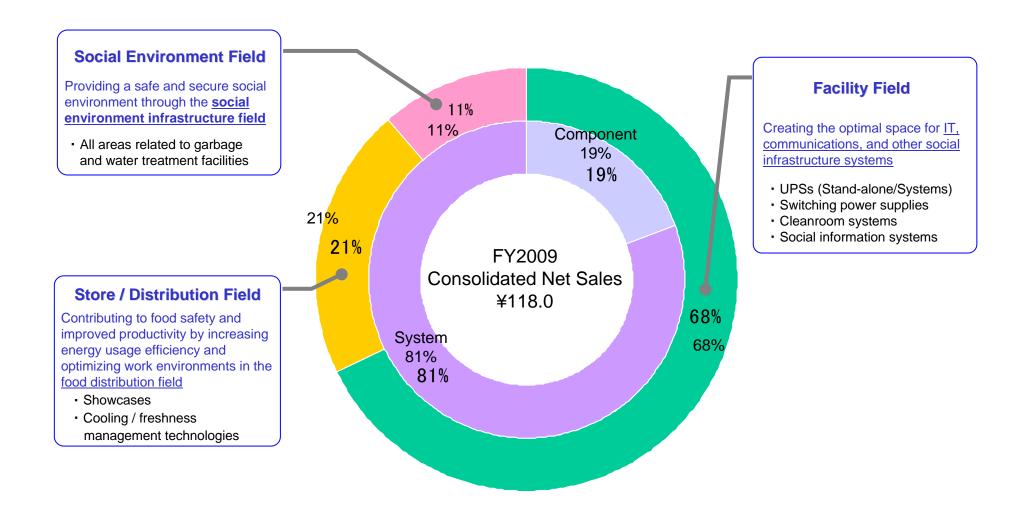
August 18, 2010 Fuji Electric Holdings Co., Ltd.



- 1. Business Outline
- 2. Business Policies
- 3. Growth Strategies
- 4. Overseas Strategies
- 5. Performance Trends / Targets



# **Business Organization**





# Major Fields and Products

#### Store / Food Distribution Field Facility Field Major Fields IDC / IT and communications / Industrial Food distribution / Convenience stores / Super markets STPP (Store total plan and produce) Ecolo units Mini UPSs Switching power Medium- and large-(Unit-assembly style store Store planning (Comprehensive energy Major supplies capacity UPSs saving) ⇒ Design ⇒ Implementation system) **Products** Fuzzy control Micro-controller control Emergency power Localized air-conditioning Freshness generation systems systems **Showcases** Energy saving systems management

#### Key components

- Mini USPs—domestic market share 18% (No. 2) \*1
- · Medium- and large-capacity UPSs—domestic market share 32% (No. 1) \*2

#### Major technologies

- · High-efficiency power semiconductors technology
- High-efficiency circuit design technology

- Showcases for stores domestic share of cases for convenience stores 22% \*3
- Refrigeration/Freshness management technology
- Comprehensive store energy saving control technology
- \*1. Calculated by Fuji Electric based on figures publicly released by the Japan Electrical Manufacturers' Association (JEMA) and from surveys conducted by the Yano Research Institute (Monetary share after the merging of Fuji and TDK-Lambda Corporation)
- \*2. Calculated by Fuji Electric based on figures from surveys conducted by Denki Nichi nichi Shimbun (Volume share after the merging of Fuji and TDK-Lambda Corporation)
- \*3. Calculated by Fuji Electric based on figures compiled by the Japan Refrigeration and Air Conditioning Industry Association (Unit share)

# **Business Strengths**

## High-value-added key components

- Uninterruptible power supply systems
- Switching power supplies
- Freezing/Refrigerating showcases
- Cleanroom equipment

# High-performance engineering/implementation capabilities

## Highly reliable systems/technologies

- Power electronics and energy saving technologies
- Freezing technology
- -Localized air-conditioning systems
- -Social information systems

Strong components / Systems / Engineering

Service

Providing customer-based solutions through the social infrastructure field

- -Project management
- -Comprehensive store construction
- -Power supply engineering

- -24 hours-a-day, 365 days-a-year response
- -Maintenance service
- -Outsourcing maintenance service

**Complete-peace of mind providing service systems** 



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# Market Trends in the Social Solutions Business

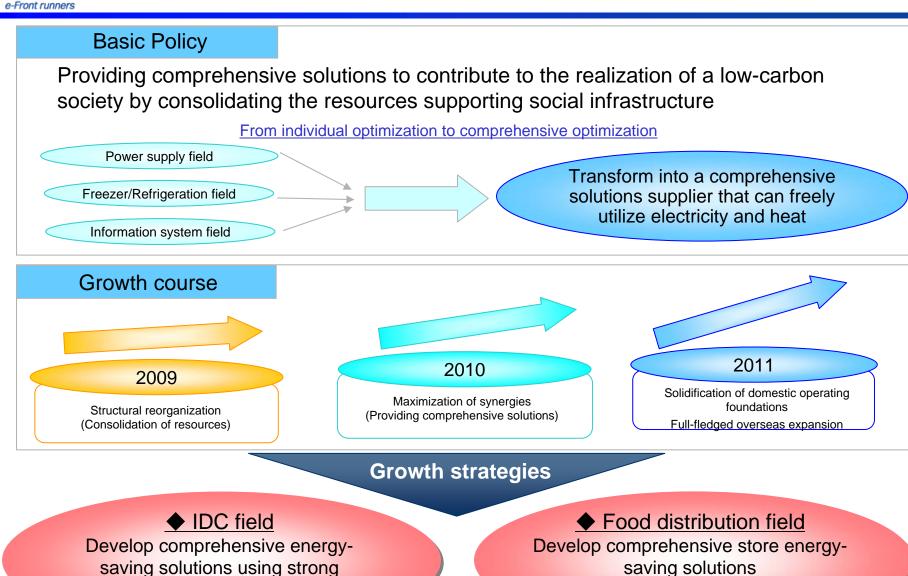
## **External Environment**

## **Social Solutions Market**

Development of an information society Increasing demand for Enhancement of information networks data management and transition to cloud computing Expansion of the market in the IDC field Growing environmental awareness Increasing demand for Institution of the Revised Energy energy-saving measures Saving Law Growing business chances in the food distribution field (energy saving / home delivery infrastructure) Increasing demand for Fewer children, aging population food distribution by means of home delivery Advancement into overseas markets Increasing demand for Appearance of massive markets Expansion of Chinese and new infrastructure in emerging countries Asian markets



## **Business Policies**



components as the key

Expand business domain in the food

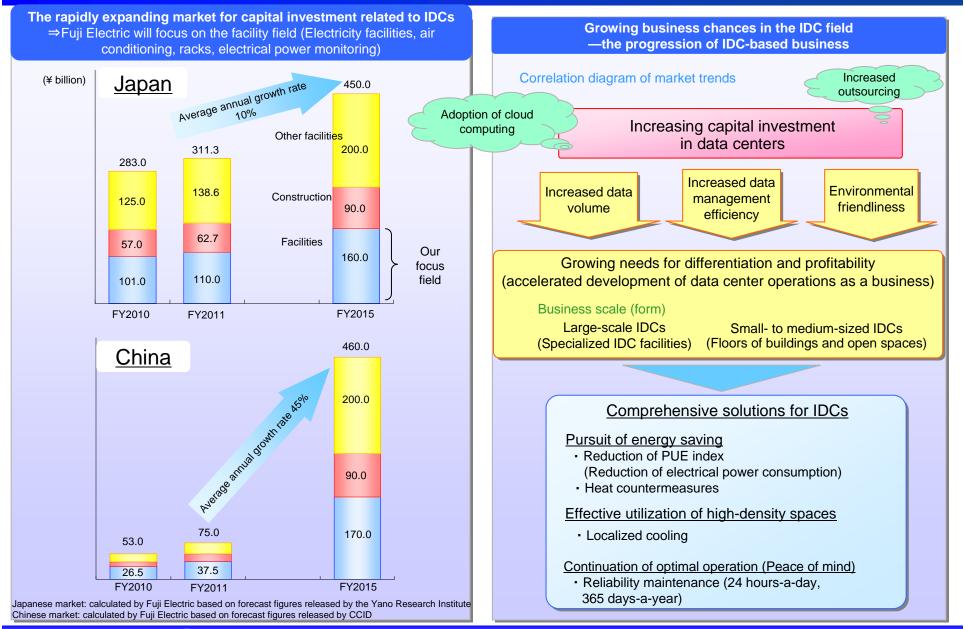
distribution field



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# Growth Strategies in the IDC Field: Market Trends

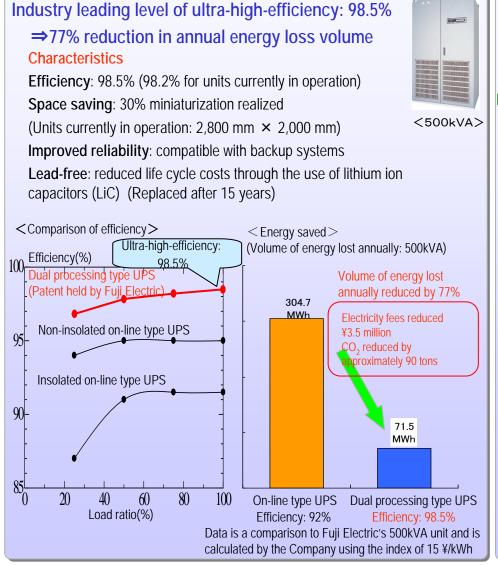




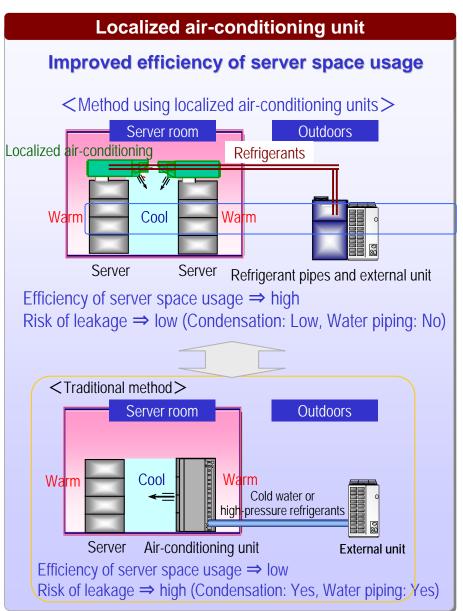
# Growth Strategies in the IDC Field: Overview of Comprehensive Solutions

#### Refrigerant Localized cooling unit Energy saving for air conditioning distribution pipes 1. High-efficiency air-conditioning systems Refrigerant pump unit (Those that utilize natural refrigerants) 2. Localized air-conditioning systems Server room (Those that reduce heat accumulation) Power / Control board Electrical equipment Clarification (Improving operational problems) room 1. Watt-hour meter units (Intelligent distribution boards) 2. Environment monitoring sensors (Temperature / Wind speed) Localized cooling unit 3. Energy saving management systems Air-conditioning (Real-time monitoring) Ceiling ventilation Ceiling ventilation equipment room Hot aisles Hot aisles Cold aisles 1. Solar power generators Racks **UPS** room Racks 2. Fuel cells Under floor ventilation 3. cogeneration Base air-conditioning Effects of Solutions (Targets) **PUE** Saving electrical power 2.0 1. Power supply facilities 1.8 Haraguchi of the Ministry of Internal (Top runner transformers) Affairs and Communications' Vision 1.6 2. High-efficiency UPSs 2.0 Achieve PUE 1.2 by 2015 Industry leading efficiency: 98.5% 1.7 1.4 3. Bus duct energy supply 1.4 1.2 1.2 PUE: Power Usage Effectiveness 2010 2011 2009 2012 A figure that displays the energy effectiveness of data centers ·Switch over to inverters used (PUE=Overall electrical power consumption of the data center ÷ in freezing equipment Rack cooling systems High-efficiency UPSs ·Free cooling systems Intelligent boards ·Backed-up localized air Utilization of snow ice electrical power consumption of servers and other IT equipment) External air cooling Measuring units conditioning DC electrical current Energy saving The PUE of a data center with the highest possible effectiveness Transformers used to lower management systems LED lighting would be PUE=1.0.

# Growth Strategies in the IDC Field: Ultra-high-efficiency UPSs, localized air-conditioning units



Ultra-high-efficiency uninterruptible power supply systems





## Growth Strategies in the Food Distribution Field: Basic Policies

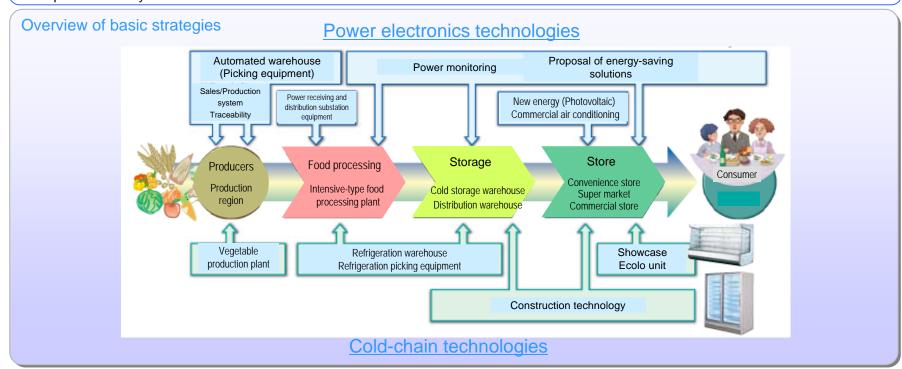
# Realize comprehensive solutions for food distribution by leveraging Fuji Electric's total engineering capabilities and strong technologies

- STPP (Store total plan and produce)
  Store planning⇒design/layout/implementation
  ⇒construction⇒maintenance
- Energy management system
- · Freezing/Refrigeration, freshness management, current control
- Power receiving and distribution substation equipment, various electric equipment
- Complete service system



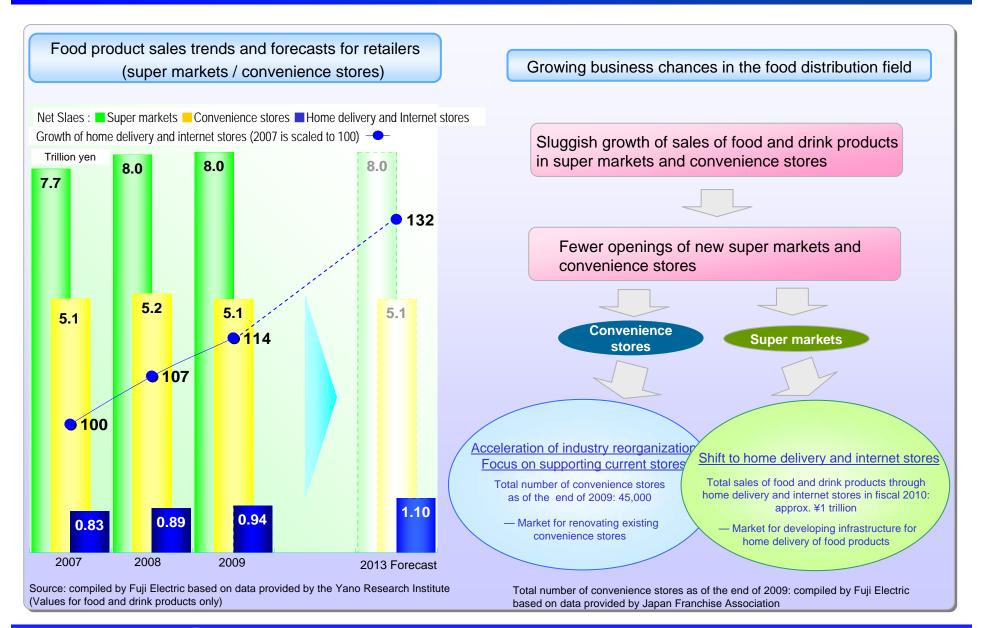
The only one supplier that can offer service from store planning and construction, to maintenance

A total planner for the entire food distribution chain, from the production region all the way to consumers



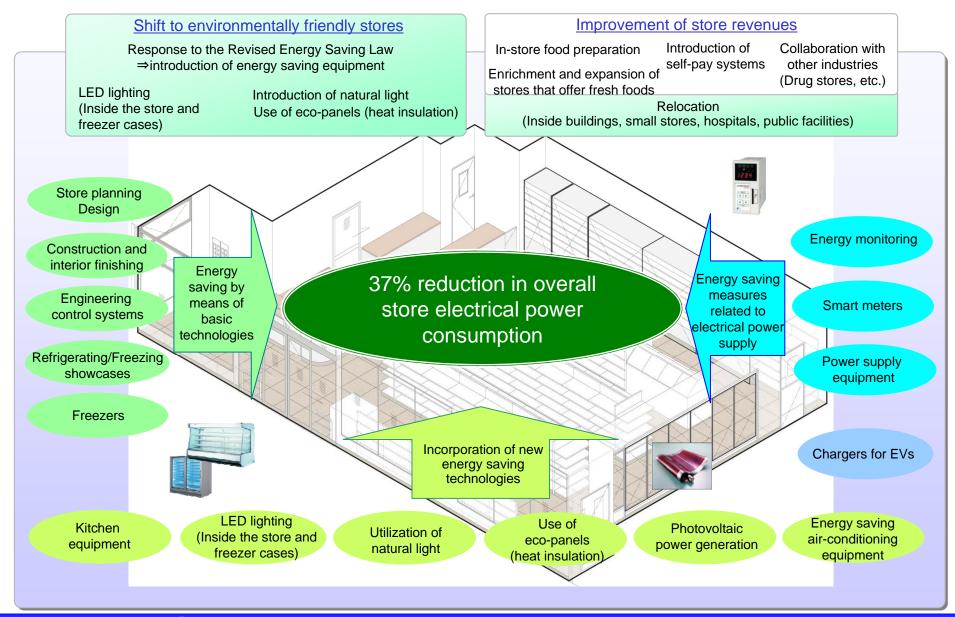


# Growth Strategies in the Food Distribution Field: Market Trends



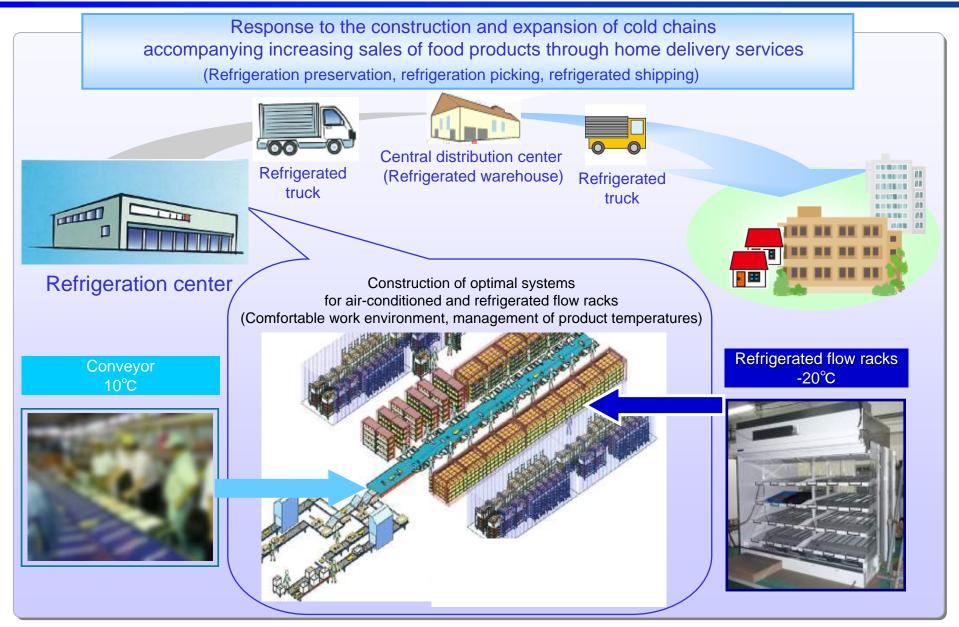


# Growth Strategies in the Food Distribution Field: Comprehensive Solutions for Convenience Stores





# Growth Strategies in the Food Distribution Field: Refrigeration Preservation and Picking





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# Overseas Strategies

# Full-fledge Overseas Expansion Starting Fiscal 2011

## **Target Regions**

China and Asia

### Focus Fields

- Advance into the IDC field
- Food distribution field (Convenience stores / Frozen distribution)

## **Principal Measures**

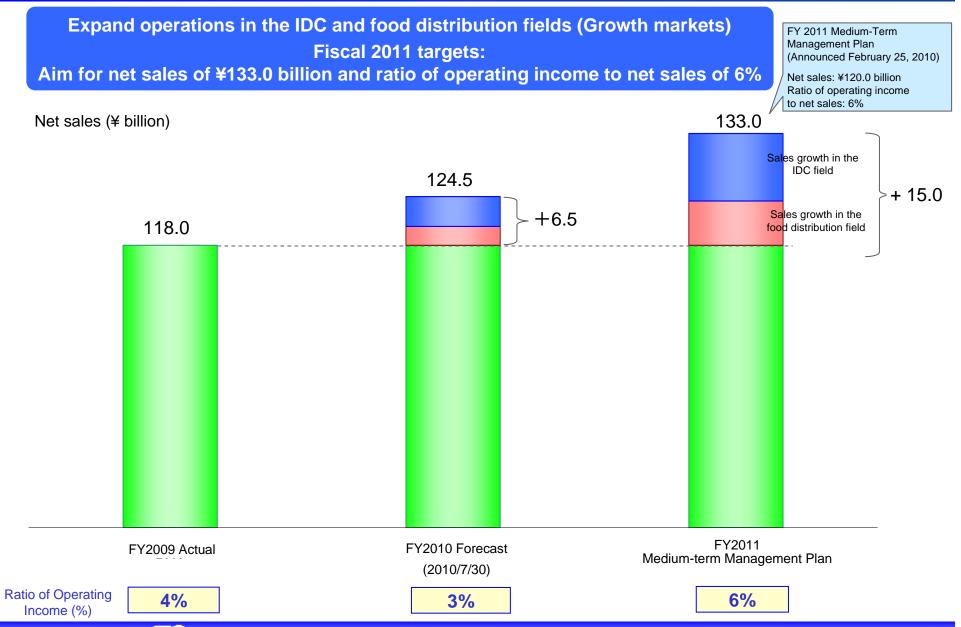
- Uniformly expand into Chinese and Asian markets by applying the knowledge and technologies accumulated through operations in Japanese markets
- Establish a supply system based on local production (Low-cost operation)
- Advance the market through cooperation with customers



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# Performance Trends / Targets





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