Power Systems
Business Strategy

December 13, 2013
Tatsuro Ishizuka
Senior Vice President and Executive Officer
President & CEO
Power Systems Group and Power Systems Company
Hitachi, Ltd.
Contents

1. Business Overview and Market Environment
2. Business Policy and Growth Strategy
3. Nuclear Power Business
4. Transmission & Distribution Business
5. Renewable Energy and Other Businesses
6. Energy Solution Services and Other Businesses
7. Conclusion
1-1. Business Overview

**Thermal Power Business**
- Coal-fired thermal power plants
- Gas turbine
- Major equipment of coal-fired thermal power plants
- Steam turbine
- Boiler

**Nuclear Power Business**
- Boiling water reactor nuclear power plants (ABWR, ESBWR)
- Preventive maintenance, nuclear fuel cycle, etc.

**Transmission & Distribution Business**
- Transmission & distribution (T&D) systems

**Renewable Energy**
- Photovoltaic power systems
- Wind power systems
- Particle beam therapy systems
- Remote monitoring center

**Power Solutions and other Businesses**
- ABWR: Advanced Boiling Water Reactor
- ESBWR: Economic and Simplified Boiling Water Reactor

FY2012 Consolidated revenues 904.6 billion yen

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### 1-2. Market Trends

#### World Electricity Generation by Energy Source

<table>
<thead>
<tr>
<th>Year</th>
<th>Base level</th>
<th>2011</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Tr kWh)</td>
<td></td>
<td>1.2 times</td>
<td>1.5 times</td>
<td>2.2 times</td>
</tr>
</tbody>
</table>

**Market Trends**

- Expansion of renewable energy, increased demand for systems to stabilize power grid
- Expansion of power transmission and distribution market
- Many countries going ahead with nuclear power plans

**Graphical Representation**

- **Source:** World Energy Outlook 2013

#### Market Trends by Region

**Emerging countries (Asia, etc.)**
- Secure stable power supplies (demand for coal-fired thermal and nuclear power systems)
- Demand to strengthen power grids

**Leading countries (Europe/Americas)**
- Strengthening power grids due to the increase in renewable energy
- Demand for new nuclear power plants in Europe

**Japan**
- Move towards separation of power generation and power distribution
- Strengthening power grids due to the increase in renewable energy

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1-3. Overview of the Thermal Power Business Integration and the Power Systems Company

(1) Company Name
Mitsubishi Hitachi Power Systems, Ltd.

(2) Scope of business integration
Thermal power system businesses (gas turbines, steam turbines, boilers, generators, etc.)
AQCS (De-NOx, De-SOx, CCS, etc.)

(3) Headquarters and primary bases
Headquarters (Yokohama City, Kanagawa Prefecture)
Primary bases (Hitachi, Kure, Takasago, Nagasaki, Yokohama, etc.)

(4) Others
January 1, 2014 (Tentative)
Shareholding ratio
Hitachi 35%
Mitsubishi Heavy Industries, Ltd. 65%

Customers
Propose solution packages that solve potential issues

Power Systems Company
IT integration, systems integration, power grid interconnection, project management

Infrastructure Systems Company
Hitachi-GE Nuclear Energy, Ltd.
Information & Telecommunication Systems Company
Hitachi Power Solutions Co, Ltd.
Hitachi Mitsubishi Hydro Corporation
Mitsubishi Hitachi Power Systems, Ltd.

CCS: Carbon Dioxide Capture and Storage
1-4. Global Position of the Power Systems Company

Business Portfolio Comparison

Hitachi’s estimates of each company’s revenues (excluding thermal power business) (size of pie chart indicates revenue size) (Base year FY2012)
1-5. Strengths of the Power Systems Company

Expand business by leveraging Hitachi’s strengths

- Propose energy solutions based on facilities and equipment, plus IT integration and management capabilities
- Respond to potential issues and needs of a wide range of customers by harnessing collective strengths

Potential needs of customers (government, utilities, manufacturing industry, multi-use facilities, etc.): (energy security, environmental issues, decentralized power sources, after-market services, initial investment)

Propose energy solutions that fuse equipment and IT

- Industrial machinery (gas engines, factory automation systems)
- Nuclear power, thermal power, hydroelectric, wind power generation facilities (boilers, turbines, generators)
- Power transmission and transformation equipment (switchgear, circuit breakers, transformers, power conditioners, batteries)

Financing
- Control system technology (power generation, transmission and distribution)
- Big Data and Cloud Technologies
- Preventive Maintenance and Maintenance Diagnosis Technologies
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2-1. FY2013 1st Half Results and Full-Year Forecasts

**FY2013 1st Half Results**

- Revenues: Decreased due to a decline in preventive maintenance services for nuclear power systems, despite higher revenues from transmission & distribution systems
- Operating income: Decreased in line with lower revenues

**FY2013 Full-Year Forecasts**

- Revenues: Projected to decrease due to a decline in revenues from nuclear power systems, and due to transfer of the thermal power business to the integrated company on January 1, 2014, despite higher revenues from transmission & distribution systems
- Operating income: Decreased in line with lower revenues

<table>
<thead>
<tr>
<th></th>
<th>FY2013 1st Half</th>
<th>Year over year change</th>
<th>FY2013 full year</th>
<th>Year over year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>376.3 billion yen</td>
<td>91%</td>
<td>750.0 billion yen</td>
<td>83%</td>
</tr>
<tr>
<td>Operating income</td>
<td>2.1 billion yen (1%)</td>
<td>-5.2 billion yen</td>
<td>15.0 billion yen (2%)</td>
<td>-14.9 billion yen</td>
</tr>
<tr>
<td>(Operating income ratio)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Accelerate “Hitachi Smart Transformation Project”

### Production cost
- Create global manufacturing system and value chain
  - Build new overseas manufacturing bases and ramp up production capacity

### Direct materials cost
- Expand global procurement and engineering
  - Increase overseas procurement ratio
    - FY2012 11% (Excluding thermal power business) → FY2015 20%

### Indirect cost
- Optimize business structure by IT and structural reforms
  - Use Group shared services to improve business efficiency
  - Implement business process reforms --- Execute dramatic profit and cash flow improvements ---

### Strengthen cash flow management
- Strengthen project management and improve profitability
- Bolster global supply chain management
2-3. Continue Working on the “Hitachi Smart Transformation Project”

Production, procurement and engineering structural reforms

Domestic mother factory development concept

- Develop and own new products and new technologies
- Produce new and competitive core products and systems
- Manage and support overseas bases (EPC, manufacturing technologies, information centers, etc.)

Specific examples of domestic mother factory

- Build a metal cask manufacturing system
- Establish new production and inspection technologies for new products
- Increase manufacturing capacity

Planned overseas manufacturing bases

Build new overseas plants and increase capacity

[Taiwan]

- Strengthen project management
  - Develop high-speed engineering tools and standardize local construction management systems

[Indonesia]

- Develop cutting-edge manufacturing Technology and global expansion
  - Introduce an assembly navigation system (G-KITS) at a switch and circuit breaker plant in Suzhou, China

EPC: Engineering, Procurement and Construction

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Develop high-speed engineering tools and standardize local construction management systems

2-4. Strengthen Project Management

Enhance earnings by dramatically shortening the engineering period and rigorously managing local construction

<table>
<thead>
<tr>
<th>Design and engineering</th>
<th>Order received</th>
<th>Local construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use IT tools to shorten</td>
<td>Use systems to</td>
<td>Hitachi Integrated</td>
</tr>
<tr>
<td>bid preparation periods</td>
<td>grasp details on</td>
<td>Plant Construction</td>
</tr>
<tr>
<td>and improve precision</td>
<td>local conditions</td>
<td>System (Large scale)</td>
</tr>
<tr>
<td></td>
<td>and carry out</td>
<td>Nuclear power plants, etc.</td>
</tr>
<tr>
<td></td>
<td>forestalling</td>
<td>Ex.) Number of equipments:</td>
</tr>
<tr>
<td></td>
<td>management</td>
<td>approx. 6,000</td>
</tr>
<tr>
<td>Boiler – engineering</td>
<td>Shortened by</td>
<td>Construction period: 5 years</td>
</tr>
<tr>
<td>and design period</td>
<td>90% (FY2004→FY2007)</td>
<td></td>
</tr>
<tr>
<td>Thermal power-</td>
<td>Shortened by</td>
<td>Hitachi Integrated</td>
</tr>
<tr>
<td>engineering and</td>
<td>70% (FY2007→FY2009)</td>
<td></td>
</tr>
<tr>
<td>design period</td>
<td>Shortened by</td>
<td>Plant Construction</td>
</tr>
<tr>
<td>Estimation period for</td>
<td>50% (FY2012→FY2013)</td>
<td></td>
</tr>
<tr>
<td>photovoltaic power</td>
<td></td>
<td>System (Medium scale)</td>
</tr>
<tr>
<td>systems</td>
<td></td>
<td>Particle beam therapy systems, etc.</td>
</tr>
<tr>
<td>Turbine and generator</td>
<td>Shortened by</td>
<td>Ex.) Number of equipments:</td>
</tr>
<tr>
<td>drawing creation time</td>
<td>50% (FY2012→FY2013)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>approx. 1,600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction period: 10 months</td>
</tr>
</tbody>
</table>

Ex.) Number of equipments:
- approx. 1,600
- approx. 100
- approx. 6,000
2-5. Examples of Development and Global Expansion of Cutting-edge Manufacturing Technologies

Assembly navigation system (G-KITS)

- Developed by pooling the manufacturing expertise of Kokubu Engineering & Product Div. (March 2013)
- Provide clear work instructions using 3D animation; store and share data on work logs
- Introduced at a switchgear plant in Kokubu Factory, Suzhou, China (from August 2013)

Global expansion of mother plant quality

G-KITS : Global(GIS,GCB) - Kokubu(kumitate) Instruction Training System
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3-1. Nuclear Power Business-Basic Policy

Raise the safety of nuclear power generation as an effective source of energy for curbing CO₂ emissions to meet continuing global demand.

<table>
<thead>
<tr>
<th>Revenues</th>
<th>FY2012: 160 billion yen ➔ FY2020: 360 billion yen</th>
</tr>
</thead>
</table>

Japan: Promote measures to increase plant safety, and respond to the Fukushima restoration and revitalization

- Respond to new nuclear power plant regulations
- Measures to enhance plant safety
- Steady progress on Fukushima restoration and revitalization

Overseas: Promote and strengthen energy solutions business

- Implement measures for constructing ABWRs in the UK
- Promote actions to continue discussions on the Lithuania nuclear power project
- Focus on expanding sales to countries planning to construct new nuclear power plants
- Develop ABWR designs with enhanced safety, next-generation safety technologies

FY2012: 160 billion yen ➔ FY2020: 360 billion yen

Revenues

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3-2. Plant Safety Enhancement Measures

**Respond to New Nuclear Power Plant Regulations**

**Measures to prevent hydrogen explosion**
- Blowout panel
- Recombination by catalyst

**Major accident management facility**
- Emergency control room
- Power supply (generators, batteries)
- Communication and monitoring control
- Residence area, air conditioners

**I&C systems enhancement**
- Install water level instrumentation in SFP

**Low pressure coolant system enhancement**
- (Mobile) Desalination facility
- (Mobile) Alternative heat exchanger

**High pressure coolant system enhancement**
- High pressure coolant system (TWL pump)

**Power supply enhancement**
- Enlarge batteries’ capacity
- Decentralized power supply

**Emergency safety measure**
- Emergency response building (seismically isolated structure)
- Water tightened building

**Filtered containment venting**
- Venting facility

**RPV Depressurization function enhancement**
- Enlarge batteries’ capacity
- Store spare nitrogen gas bottles for operation

**Propose these measures to 19 plants Hitachi constructed**

TWL: Turbine Water Lubricated
Plant Safety Enhancement Measures

Filtered containment venting (cooperation with AREVA)

Enhance performance of high pressure coolant injection system
(cooperation with GE-Hitachi Nuclear Energy)

Power supply enhancement

High pressure coolant system
(TWL type pump)

Enlarged batteries capacity,
Decentralized arrangement

Hitachi Works

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Examples of activities at the Fukushima Daiichi nuclear power plant

Unit 4 rubbles and spent fuels removal in the spent fuel pool

Mock up and training scene at Hitachi BWR Maintenance Technology Center

Hitachi BWR Reactor Maintenance Technology Center

Participating National Projects

- further strengthening contaminated water treatment facilities
- Development technologies for removing damaged fuels

Monitoring at Decontamination work

- Development gamma radiation distribution measurement system

Underwater exploration robot for the PCV torus
UK Nuclear Project: Horizon Nuclear Power

Status of Wylfa Newydd Project

- Construction of 2 ABWR units
- Hitachi, Horizon Nuclear Power and HM Treasury signed a co-operation agreement to jointly promote the financing of the Project
- GDA to be completed by 2018
- Strike price for EDF has been decided
Current status of the Visaginas project in Lithuania

Actively carried forward activities in Lithuania

- Electric power providers of Baltic states and Hitachi have signed and submitted to the government, an agreement for jointly evaluating economic efficiency (September, 2013)

- Parliament (Seimas) approved of holding continuous discussions regarding the project (October, 2013)

- Tokyo Tech and Hitachi provided Global Nuclear Human Resource Development seminar (Kaunas University of Technology) (October, 2013)

- Lietuvos Energijia and Hitachi signed Memorandum of Understanding for seeking potential cooperation in the field of energy technology (October, 2013)

Prime ministers of Baltic states agreed on resuming the Visaginas project
3-7. Updates on Cooperation with GE

- Focusing on countries planning constructions of new nuclear power plants

**Hitachi GE Nuclear Energy**
- **Sweden**
- **Finland**
- **Lithuania**
- **Poland**
- **Mexico**
- **Vietnam**
- **U.S.A.**
- **Canada**
- **Saudi Arabia**
- **India**
- **Malaysia**

- Propose ABWRs to Malaysia and other countries
- Cooperate with and strengthen support for GE-Hitachi
  - Plan construction of ESBWRs for Dominion in the U.S.
  - Propose ABWR/ESBWR to each country

**HAL**: Hitachi America Ltd.
**HEU**: Hitachi Europe Ltd.
**HNP**: Horizon Nuclear Power Ltd.

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4-1. Transmission & Distribution Business - Basic Policy

Revenues

FY2012: 70 billion yen → FY2015: 110 billion yen

Develop into a core business of Power Systems Company

- Expand T&D business globally based on competitive products and abundant supply experiences
- Strengthen global expansion of wide-area grid stabilization systems fusing equipment and IT
- Begin field testing the “CrystEna”, energy storage system

Accelerate Global Market Expansion

CAGR: Compound Annual Growth Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Transformers</th>
<th>Switchgear</th>
<th>Automation</th>
<th>Power electronics</th>
<th>Systems, etc.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2000</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
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<td>5</td>
</tr>
<tr>
<td>FY2005</td>
<td>6</td>
<td></td>
<td></td>
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<td></td>
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<td>FY2010</td>
<td>10</td>
<td></td>
<td></td>
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<td></td>
<td>10</td>
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<tr>
<td>FY2015</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
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<tr>
<td>FY2020</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

* Hitachi estimates

FY 2020: 21 Trillion Yen

CAGR 8% (High-value-added systems)
CAGR 6%
Expand competitive global solutions that fuse equipment and IT

- Integrate high value-added products and information control technologies in Japan with competitive overseas products
- Establish and increase capacity of global manufacturing bases
- Strengthen cooperation between mother plants in Japan and global bases

Establish and strengthen Overseas manufacturing bases for competitive, highly reliable equipment

Overseas sales and engineering bases
- Singapore
- Indonesia (PT. Hitachi Asia Indonesia)
- Kuwait office, etc.

Transformer factory in Taiwan
- To start operation in January 2014

Switchgear factory in Indonesia
- Extension of production building in March, 2013 (Double capacity)
4-3. Global Expansion of Wide-area Grid Stabilization Systems

Wide-area Grid Stabilization Systems

- Prevent large-scale power outages through forecast and simulation-based control
- Grid stabilization with battery storage systems, etc.

Comprehensive agreement with Russia's Federal Grid Company

- Comprehensive agreement signed in the electric power industry (April 2012)
  Remote monitoring and diagnosis of transformer substations and improvement of safety and reliability of large power grids

Comprehensive agreement signed with Russian Grids (June 2013)
Develop power transmission and distribution network (modernization and stabilization) in the Republic of Buryatia

Comprehensive agreement with Mongolia

- Comprehensive agreement signed with Mongolia Ministry of Energy (May 2013)
  Modernize and stabilize power transmission & distribution network; explore finance schemes

System control room

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4-4. Power Storage System “CrystEna”

A new initiative targeted by the Power Systems Group = One of Hitachi’s Energy Solutions

CrystEna = Crystal (crystallization of the Hitachi Group’s technologies) + Energy

Procure optimal components within the Hitachi Group, and supply them as an integrated system.
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5-1. Renewable Energy and Others-Basic Policy

Revenues

FY2012: 160 billion yen  ➔  FY2015: 240 billion yen

**Renewable Energy Business**

- Contribute to realizing a low-carbon society through wind and photovoltaic power systems
- Provide integrated energy solutions spanning grid connection, construction, maintenance, operational monitoring and finance

**Particle Beam Therapy System Business**

- Expand business through leading-edge technologies such as world-leading advanced spot scanning irradiation technology*, and outstanding operational track records in Japan and the U.S.

* Compatible with beam scanning system
### 5-2. Wind Power Generation Systems

**Hitachi's initiatives and characteristics of downwind-type wind turbines**

- Won orders for more than 130 x 2 MW-class Hitachi downwind-type wind turbines to date
- Participated in floating offshore wind power generation demonstration and research projects carried out by the Ministry of Economy, Trade and Industry, and the Ministry of the Environment
- Development of 5 MW offshore downwind-type wind turbines (field test in 2014, commence sales in 2015)

#### Characteristics of Hitachi’s downwind-type wind turbines

- In floating offshore wind turbines, the rotor tilts into the wind to capture the wind more efficiently, resulting in higher power generation compared with upwind-type wind turbines.
- Enable to reduce the wind load, because rotors maintain an alignment that does not bear the force of crosswinds even during times of high winds, reducing the wind load.

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5-3. Photovoltaic Power Systems

Characteristics of Photovoltaic Power Systems (Mega Solar)

- Extensive track record in coordination of large-scale projects
- World-class core product lineups such as power conditioners (PCS)
- A solutions business providing turn-key solutions ranging from fund procurement to 20 years of operation and maintenance

Japan’s largest class mega-solar systems (82 MW-class)

Oita Solar Power
Total area: approx. 1 km² (the area of approx. 22 Tokyo Domes)
Panels: approx. 340,000 (approx. 500 km when laid down end to end: distance between Tokyo and Osaka)

Propose solutions

- Turn-Key Solution
- Power Grid Connection
- Maintenance
- Finance
  - Hitachi Capital, Ltd., others
- PCS
- Storage Battery
  - Hitachi Chemicals
- Solar Power
5-4. Particle Beam Therapy System Business

Particle beam therapy systems*1 around the world and Hitachi’s track record of winning orders

Orders received from 11 organizations around the world, centered on high profile hospitals and research facilities in Japan and North America

*1: Operations already under way or facility under construction (including systems approved for installation)

*2: Concluded research radiation operation for medical purposes in November 2009
## 5-5. Initiatives in the Particle Beam Therapy System Business

Create technologies using accelerator technology and plant engineering skills amassed over many years

| Cutting-edge technologies, including industry-leading spot scanning irradiation system | Expand orders received based on outstanding operational track record in Japan and the U.S. |

- Have treated over 7,000 patients in U.S.A. and Japan to date
- Delivered Japan’s first proton beam spot scanning irradiation system (scheduled to begin offering treatment in FY2013)
- Construction underway at 3 famous hospitals in the U.S.
- Expand markets to Europe/Russia, Asia and the Middle East
- Be a key player in Japan’s drive to export medical technologies
- Signing ceremony with Russian medical and research institute
- Held user meetings (Essen, Germany)

**Target: over 30% market share**
5-6. Outline of Particle Beam Therapy Facility System

Composition and main facilities and equipment of Particle beam therapy facility

- Main accelerator (Proton Synchrotron)
- Injector (Proton Linac)
- Approx. 70 m
- Approx. 50 m
- Fixed beam irradiation room
- Inside Gantry Irradiation room
- Rotating Gantry
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6-1. Energy Solution Business

Newly establish Energy Solution Business Division

Power Systems Group

Infrastructure Systems Group

Information & Telecommunication Systems Group

Nuclear System Division

Hitachi-GE Nuclear Energy, Ltd.

Industrial Systems Division

Transmission & Distribution Systems Division

(Energy Division)

(Energy Solution Business Development Dept.)

Hitachi Works

Hitachi Power Solutions, Ltd.

Vigorously promote business as the Power Systems Group’s fourth division

( ): January 2014 onward
6-2. Examples of Energy Solutions Business (1)

Examples of energy solutions for micro grid communities, which are facing high fuel prices

Local needs of micro grid communities
- Control operational costs (reduce fuel costs)
- Reduce power generation costs (power generation facilities)
- Stabilization of power grids

Hitachi’s Solutions
- Renewable energy facilities
- Optimum system proposals (EMS, demand coordination)
- Provide finance, leases and ESCO

Energy Solution

- Facility investment and fuel costs
  - Before introduction
  - After introduction
  - Additional System costs
  - Fuel costs

Examples of energy solutions for micro grid communities, which are facing high fuel prices

- Renewable energy facilities
  - Wind Power
  - Solar Power
  - Storage Batteries
  - EMS

Expensive diesel fuel

EMS: Energy Management System
ESCO: Energy Service Company

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6-3. Examples of Energy Solutions Business (2)

Examples of coordination among IPP and PPS operators leveraging extensive channels

<table>
<thead>
<tr>
<th>Needs</th>
<th>Hitachi’s Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ IPP: upgrade facilities (newly built)</td>
<td>■ Secure and coordinate transaction parties (sellers and buyers of electricity)</td>
</tr>
<tr>
<td>Enhance availability rate, secure power buyers, obtain financing</td>
<td>■ Supply, maintain and operate facilities</td>
</tr>
<tr>
<td>■ PPS: Secure a stable source of power</td>
<td>■ Finance</td>
</tr>
</tbody>
</table>

Energy Solution
(Brokering the surplus power of IPP to PPS operators)

IPP

Private Power Generation

Surplus power

Facility

Stable and Inexpensive Power

Finance

Maintenance & Operation

PPS

IPP: Independent Power Producer
PPS: Power Producer and Supplier

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6-4. Service Business Basic Policy

**Examples of products eligible for conventional maintenance services**

- Regular-use diesel power generation facilities (DEG)
- Gas engine power generation facilities (gas engines)
- Uninterruptible Power Supplies (UPS)
- Wind power generation systems
- Water supply and sewage plants
- X-ray baggage checking equipment

**Achievement of advanced maintenance services**

- Expertise in maintenance services business
- ICT (system integration capabilities)

**Revenues**

FY2013: 140 billion yen → FY2015: 210 billion yen

**Expand conventional maintenance services business to advanced maintenance services**

- Service Center: 36 locations
- Sales Branch, etc.: 11 locations
- Factory: 19 locations

**Examples of target product fields**

- ICT: Information and Communication Technology

**Locations**

- Sapporo
- Iwamizawa
- Sendai
- Kanazawa
- Hiroshima
- Osaka
- Tokyo
- Sapporo
- Naha
- Nagoya
- Takamatsu

(As of October 2013)

Example: Hitachi Power Solutions Co, Ltd.

**Revenue Targets**

- FY2013: 140 billion yen
- FY2015: 210 billion yen

**Expertise in maintenance services business**

**ICT (system integration capabilities)**

**Achievement of advanced maintenance services**
6-5. Expand Service Business

Expand preventive maintenance and advanced maintenance services

- Expand preventive maintenance business further
- Provide advanced maintenance service business based on greater IT utilization
  - Expand remote monitoring, Long-Term Service Agreements (LTSA) and Enterprise Asset Management (EAM)
  - Provide integrated service solutions through to operation and maintenance

Remote monitoring center

LTSA: Long Term Service Agreement  EAM: Enterprise Asset Management
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7-1. Business Deployment of Power Systems Company

Cultivate global market in close collaboration with each company

Energy Solution

Nuclear Energy

Transmission & Distribution Systems

Wind Power

Energy Storage

EMS

Solar Power

Particle Beam Therapy System, others

Renewable Energy

Finance

Service

Information & Telecommunication Systems Company

Infrastructure Systems Company

Hitachi-GE Nuclear Energy, Ltd.

Hitachi Mitsubishi Hydro Corporation

Mitsubishi Hitachi Power Systems, Ltd.

Hitachi Power Solutions, Ltd.
7-2. Orders

Orders received (Billion yen)

<table>
<thead>
<tr>
<th></th>
<th>FY2010</th>
<th>FY2011</th>
<th>FY2012</th>
<th>FY2013 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Power Business</td>
<td>691.7</td>
<td>685.7</td>
<td>848.3</td>
<td>650.0</td>
</tr>
<tr>
<td>Nuclear Power Business, T&amp;D, Renewable Energy and Other Businesses</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

FY2013 forecast excludes the thermal power systems business for January-March 2014

Main FY2012 Orders

- Thermal: large projects in India, Poland, South Korea, etc.
- Renewable energy: large wind power and mega solar projects

FY2013 Initiatives

- Step up activities to win orders centered on projects for improving the safety of existing nuclear power plants in Japan and renewable energy, as well as overseas thermal power and T&D projects
7-3. Business Performance Trends

Revenues (Billion yen)
- FY2010: 813.2
- FY2011: 832.4
- FY2012: 904.6
- FY2013 Forecast: 750.0
- FY2015 Target: 500.0

Overseas revenue ratio
- FY2010: 39%
- FY2011: 34%
- FY2012: 39%
- FY2013 Forecast: 43%
- FY2015 Target: (30%)

EBIT (Billion yen)
- FY2010: 15.6
- FY2011: (45.0)
- FY2012: 30.0
- FY2013 Forecast: 15.0
- FY2015 Target: [950.0]

*1: Figures announced on June 14, 2012 (EBIT ratio were calculated based on previous forecasts)
*2: Figures announced on June 14, 2012 excluding the thermal power business
Accelerate promotion of global growth strategy
Capture synergies with the integrated thermal power business

**FY2015 Targets**

- Revenues: 500 billion yen (overseas revenue ratio: 28%)
- EBIT margin: 11.6%*
- Gross margin: 3 point improvement (Vs. FY2012)
- SG&A expense ratio: Hold steady (Vs. FY2012)

*:includes equity method earning of the joint venture in the thermal power generation system business
Cautionary Statement

Certain statements found in this document may constitute “forward-looking statements” as defined in the U.S. Private Securities Litigation Reform Act of 1995. Such “forward-looking statements” reflect management’s current views with respect to certain future events and financial performance and include any statement that does not directly relate to any historical or current fact. Words such as “anticipate,” “believe,” “expect,” “estimate,” “forecast,” “intend,” “plan,” “project” and similar expressions which indicate future events and trends may identify “forward-looking statements.” Such statements are based on currently available information and are subject to various risks and uncertainties that could cause actual results to differ materially from those projected or implied in the “forward-looking statements” and from historical trends. Certain “forward-looking statements” are based upon current assumptions of future events which may not prove to be accurate. Undue reliance should not be placed on “forward-looking statements,” as such statements speak only as of the date of this document.

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- exchange rate fluctuations of the yen against other currencies in which Hitachi makes significant sales or in which Hitachi’s assets and liabilities are denominated, particularly against the U.S. dollar and the euro;
- uncertainty as to Hitachi’s ability to access, or access on favorable terms, liquidity or long-term financing;
- uncertainty as to general market price levels for equity securities, declines in which may require Hitachi to write down equity securities that it holds;
- the potential for significant losses on Hitachi’s investments in equity method affiliates;
- increased commoditization of information technology products and digital media-related products and intensifying price competition for such products, particularly in the Digital Media & Consumer Products segment;
- uncertainty as to Hitachi’s ability to continue to develop and market products that incorporate new technologies on a timely and cost-effective basis and to achieve market acceptance for such products;
- rapid technological innovation;
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- fluctuations in the price of raw materials including, without limitation, petroleum and other materials, such as copper, steel, aluminum, synthetic resins, rare metals and rare-earth minerals, or shortages of materials, parts and components;
- fluctuations in product demand and industry capacity;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in product demand, exchange rates and/or price of raw materials or shortages of materials, parts and components;
- uncertainty as to Hitachi’s ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business;
- uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness;
- uncertainty as to the success of cost reduction measures;
- general socioeconomic and political conditions and the regulatory and trade environment of countries where Hitachi conducts business, particularly Japan, Asia, the United States and Europe, including, without limitation, direct or indirect restrictions by other nations on imports and differences in commercial and business customs including, without limitation, contract terms and conditions and labor relations;
- uncertainty as to the outcome of litigation, regulatory investigations and other legal proceedings of which the Company, its subsidiaries or its equity method affiliates have become or may become parties;
- the possibility of incurring expenses resulting from any defects in products or services of Hitachi;
- the possibility of disruption of Hitachi’s operations by earthquakes, tsunamis or other natural disasters;
- uncertainty as to Hitachi’s ability to maintain the integrity of its information systems, as well as Hitachi’s ability to protect its confidential information or that of its customers;
- uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its significant employee benefit-related costs; and
- uncertainty as to Hitachi’s ability to attract and retain skilled personnel.

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