

Power Systems Business Strategy

Hitachi IR Day 2013

June 13, 2013

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Vice President and Executive Officer

President & CEO

Power Systems Group and

Power Systems Company

Hitachi, Ltd.

Power Systems Business Strategy

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- 1. Business Overview and Market Environment**
2. Business Policy and Growth Strategy
3. Base Businesses
4. Growth Businesses
5. Service Businesses
6. Business Performance Trends and Targets
7. Conclusion

Thermal Power Business

Coal-fired thermal power plants



Gas turbines



Major equipment of coal-fired thermal power plants

Steam turbines



Boilers

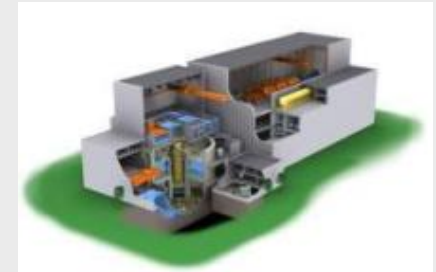


AQCS

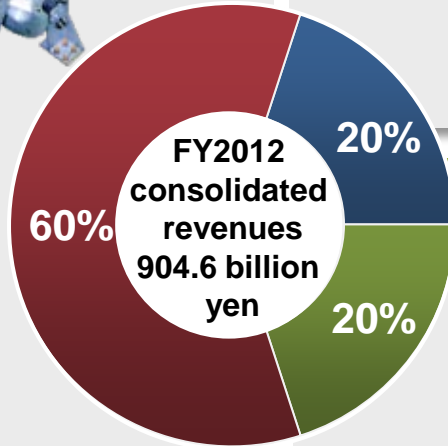


Nuclear Power Business

Boiling water reactor nuclear power plants (ABWR·ESBWR)



Preventive maintenance, nuclear fuel cycle, etc.



Transmission & Distribution, Renewable Energy and Other Businesses

Particle beam therapy systems



Wind power generation systems



Transmission & distribution (T&D) systems

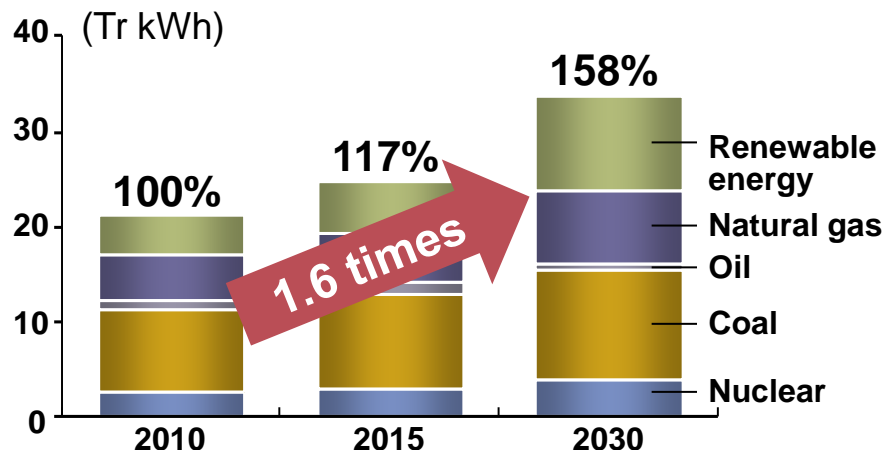


Photovoltaic power generation systems



Hydroelectric power generation systems, drive systems, smart grids, power semiconductors, etc.

World Electricity Generation by Energy Source



■ World electricity generation is expected to grow by approx. 1.6 times (from 2010 to 2030)

Market trends

- Many countries going ahead with nuclear power plans
- Accelerated adoption of renewable energy and increased demand for systems to stabilize power grids
- Expansion of power transmission and distribution market
- Steady growth in demand for coal-fired thermal power plants
- Increasing demand for AQCS due to regulation

Market Trends by Region

Emerging Countries (Asia, etc.)

- Looking to secure stable power supplies (demand for coal-fired thermal and nuclear power systems)
- Demand to strengthen power grids

Developed Countries (Europe/Americas)

- Increasing and strengthening power grids due to the increase in renewable energy
- Demand for new nuclear power plants in Europe

Japan

- Moves to separate power generation and power distribution
- Increasing and strengthening power grids due to the increase in renewable energy

1-3. FY2012 Results

FY2011-FY2012 Results

(Billion yen)

	FY2011 (Results)	FY2012 (Results)	YoY
Revenues	832.4	904.6	109%
EBIT	△45.0	30.0	+75.0

Revenues

Revenues rose mainly due to taking-over of the transmission and distribution systems business from Japan AE Power Systems Corporation, higher sales of thermal power generation systems and other factors.

EBIT

The segment saw a marked improvement in profitability and moved back into the black, mainly due to the absence of additional expenses in overseas thermal power generation systems recorded in FY2011, as well as the progress with cost-reduction measures.

1-4. Accelerate Global Business Development

Global

Business integration of the thermal power generation business



U.K.

Acquisition of Horizon Nuclear Power Limited



Poland

Won orders for ultra-super critical coal-fired thermal power generation systems



GIS: Gas Insulated Switchgear

Indonesia

Enhanced production facility for 500kV GIS



1-5. Overview of the Thermal Power Business Integration

Thermal power business revenues

FY2012: 510 billion yen

Bolster and promote thermal power joint venture business to achieve leading global position

Scope of business integration

- Thermal power generation system businesses (gas turbines, steam turbines, boilers, generators, etc.)
- Geothermal power system business
- AQCS (De-NOx, De-SOx, etc.)

Shareholding ratio

- Hitachi 35%
- Mitsubishi Heavy Industries, Ltd 65%

Schedule

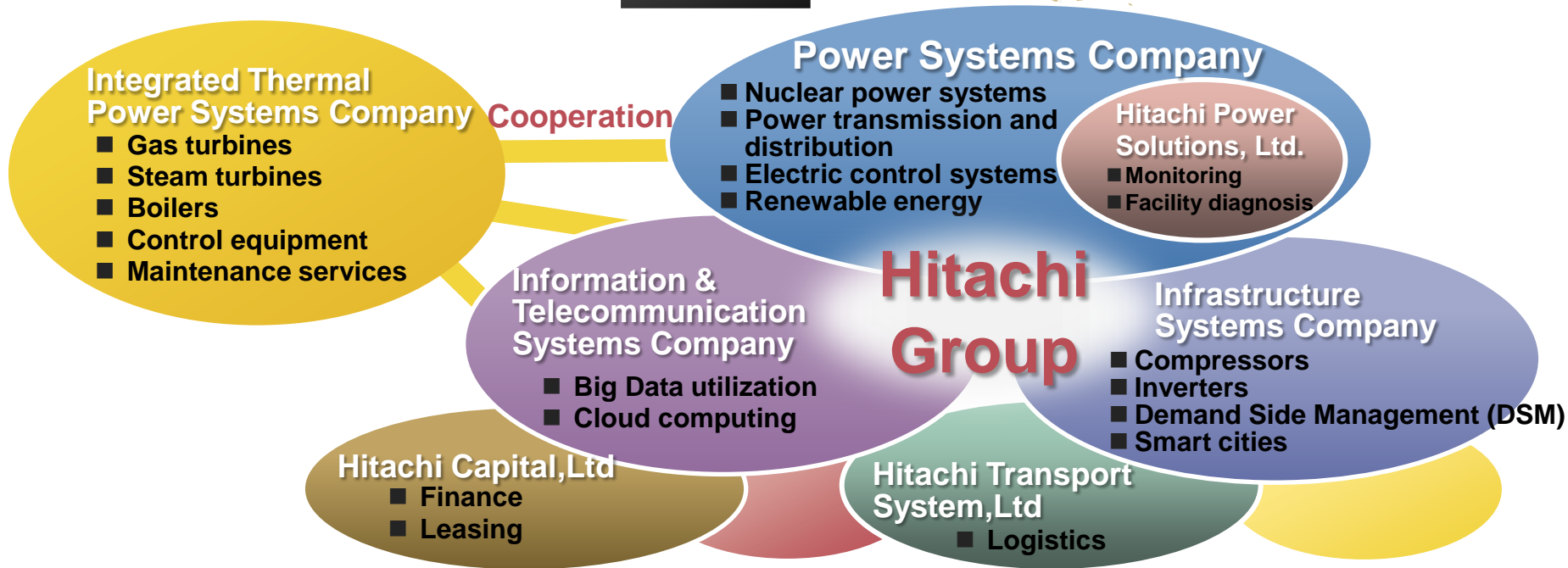
- Effective date **January 1 2014**

Synergies of Integrated Thermal Power Systems Company

		Global competitors	Integrated Thermal Power Systems Company									
Revenues			Synergies with Mitsubishi Heavy Industries, Ltd. 									
	Asia & Pacific		Strengthen further									
Regions	Europe, Middle East and Africa		Expand sales channels									
	Products	<table border="1"> <tr> <td>Gas turbines</td> <td>Small and medium-sized</td> <td>Large-sized</td> </tr> <tr> <td>Coal-fired thermal power systems</td> <td>Low-grade coal-fired boilers</td> <td>High-grade coal-fired boilers</td> </tr> </table>	Gas turbines	Small and medium-sized	Large-sized	Coal-fired thermal power systems	Low-grade coal-fired boilers	High-grade coal-fired boilers	<table border="1"> <tr> <td>Small and medium-sized</td> <td>Large-sized + Small and medium-sized</td> </tr> <tr> <td>High- and low-grade coal-fired boilers</td> <td>High-grade coal-fired boilers</td> </tr> </table>	Small and medium-sized	Large-sized + Small and medium-sized	High- and low-grade coal-fired boilers
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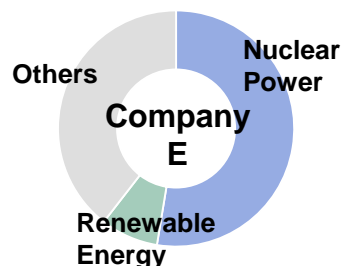
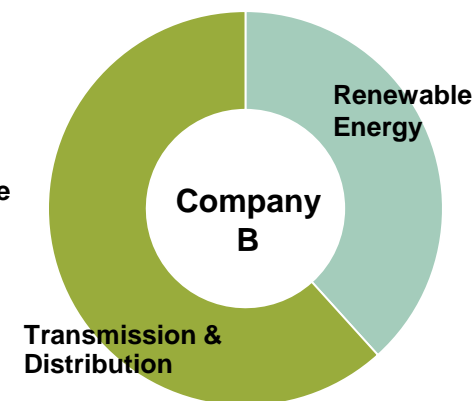
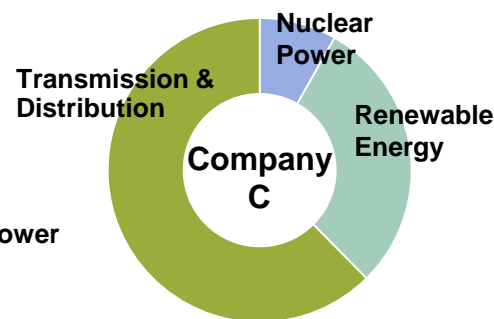
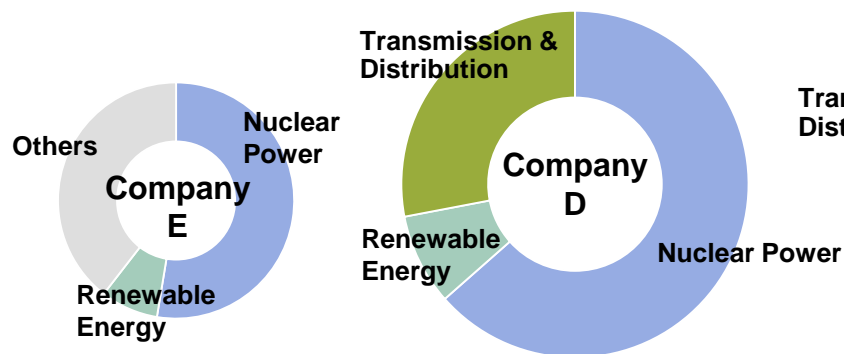
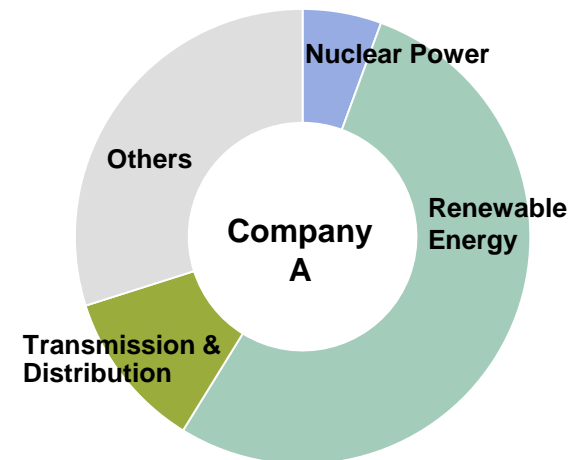
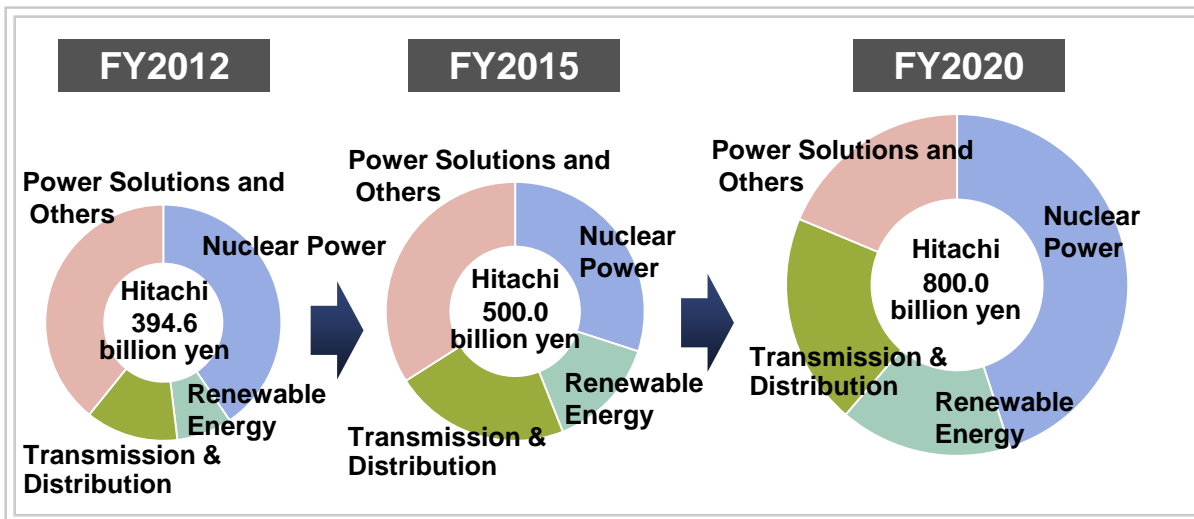
1-6. Cooperation with Integrated Thermal Power Systems Company

Expand business together with Hitachi's wide range of products, services and networks to become the global leading company



1-7. Target Position

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)

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Focus on growth business fields and building earnings base

First Pillar

- Expand base businesses
 - Build new nuclear power plant, etc.

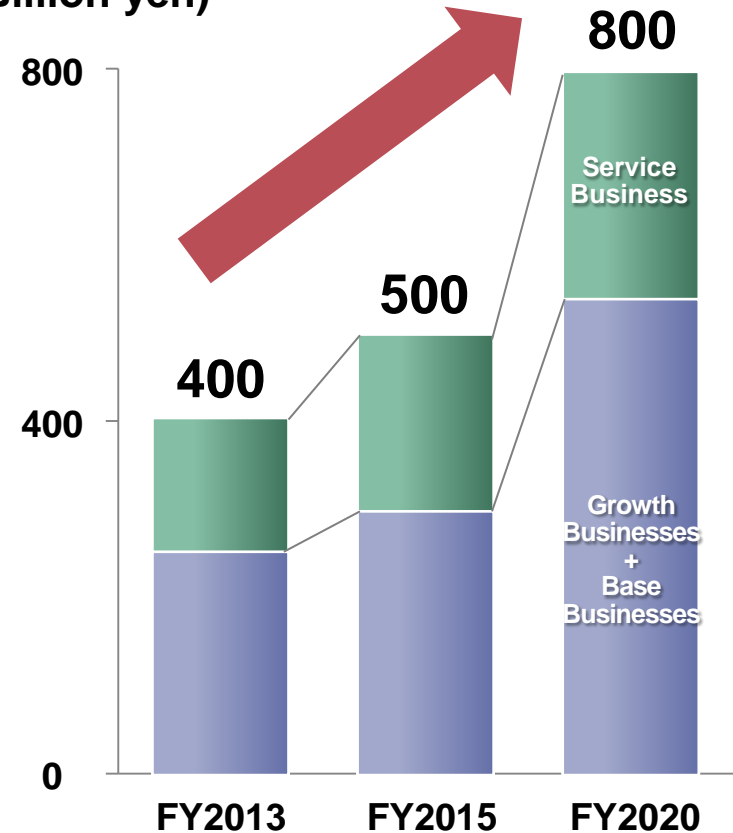
Second Pillar

- Expand growth businesses
 - Power transmission and distribution, renewable energy, particle beam therapy systems
- Launch energy solutions business

Third Pillar

- Expand services business

Business Expansion (Billion yen)



Accelerate “Hitachi Smart Transformation Project”

Reduce costs by 53 billion yen through cost structure reforms (FY2011 to FY2015 total)

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

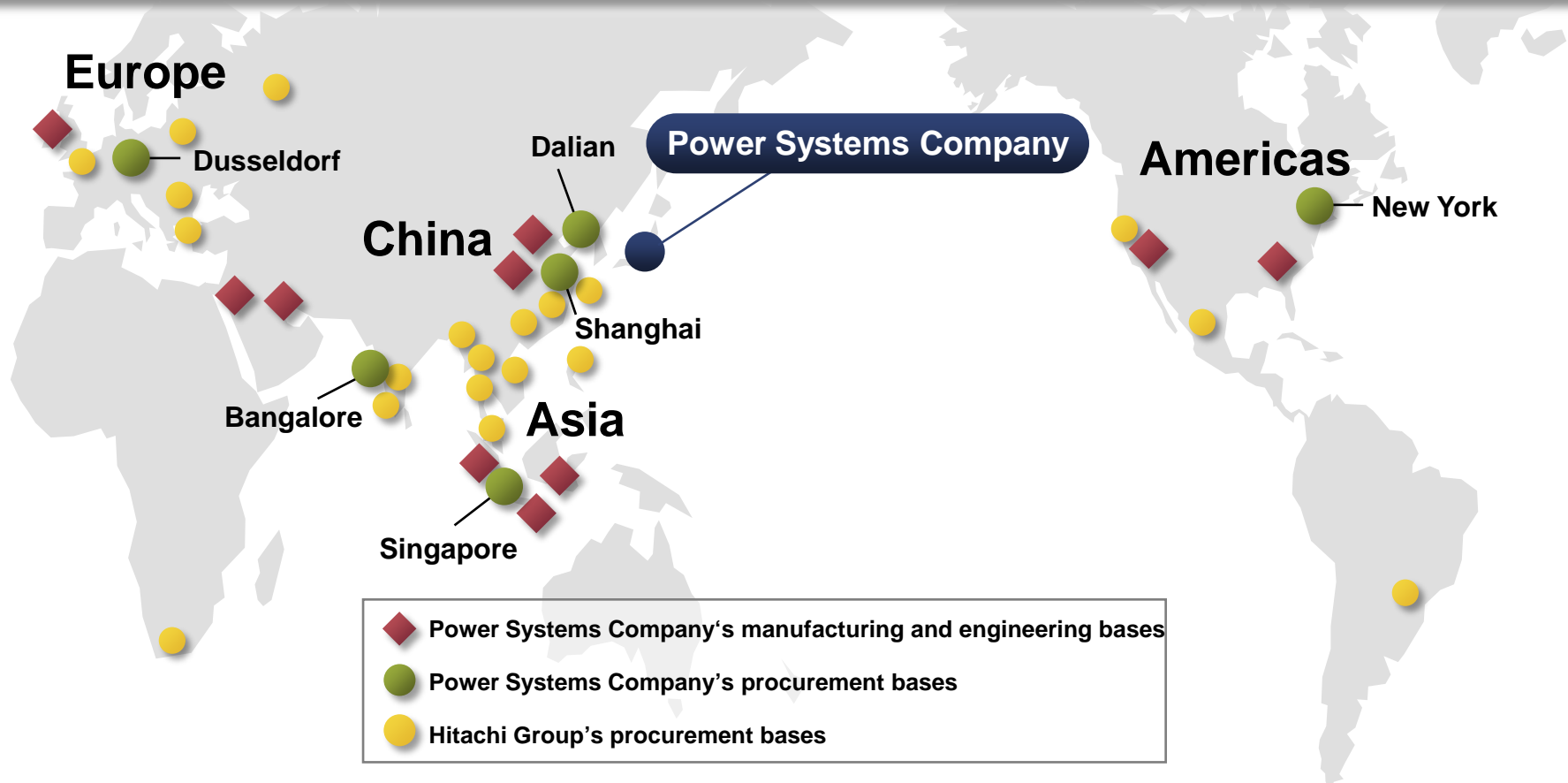
Strengthen cash flow management

- Strengthen project management and improve profitability
- Bolster global supply chain management

2-3. Build Global Value Chain

Expand and enhance global procurement, engineering and manufacturing bases

- Improve operational efficiency by strengthening global cooperation, and promote cost structure reforms
- Bolster networks by globalizing human resources and IT systems



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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.

Revenues

FY2012: 160 billion yen → FY2020: 360 billion yen

Respond to the Fukushima restoration and revitalization, and promote measures to increase plant safety

- **Fuel debris* removal and eventual reactor decommissioning**
- **Improve plant safety in conformity with the new safety standards for nuclear power plants**
- **Develop ABWR designs with enhanced safety, next-generation safety technologies**

Promote and strengthen overseas energy solutions business

- **Implement measures for constructing ABWRs in the UK**
- **Focus on expanding sales to countries continuing to construct new nuclear power plants**

*Fuel debris: material in which fuel and its cladding tubes, etc. have melted and re-solidified

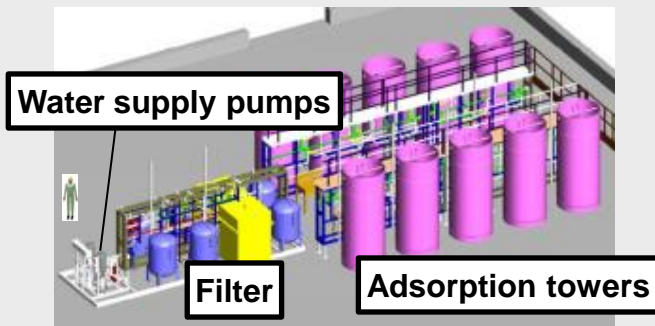
3-2. Respond to the Fukushima Restoration and Revitalization, and Steadily Promote Measures to Increase Plant Safety

Support the Fukushima restoration and revitalization

Double-arm robots



Water treatment systems



Measures to enhance plant safety

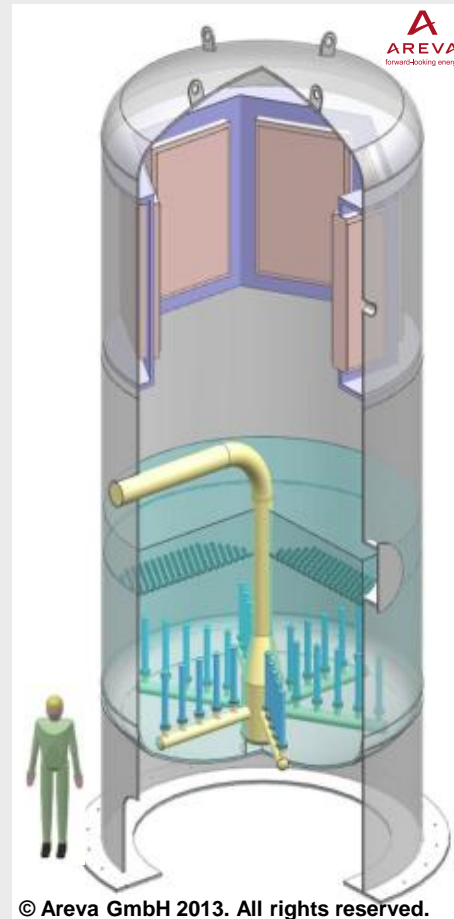
Filter Containment Venting System (cooperation with AREVA)

Strengthen cooperative relationship with AREVA



Strengthen performance of high-pressure coolant injection system

Cooperate with GE-Hitachi Nuclear Energy, Ltd.

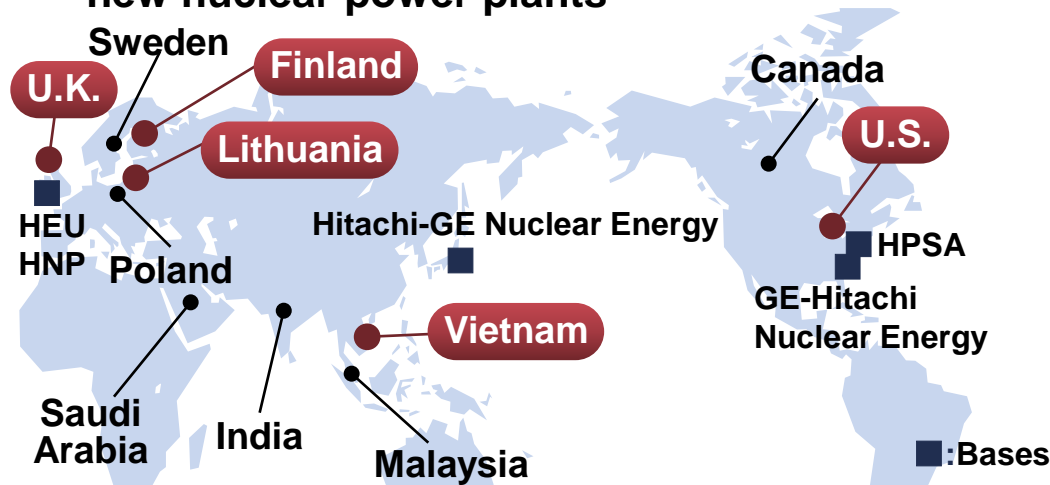


3-3. Step Up Overseas Business Development

Promote overseas development of the nuclear power systems business under the “One Team” framework with GE

- Acquired UK Horizon Nuclear Power (Nov. 2012)
Promote plans to construct new nuclear power plants at two sites*
 - Utilize PPP experience in IEP
 - Promote acquisition of GDA approval

- Focus on countries continuing to construct new nuclear power plants



HPSA : Hitachi Power Systems America Ltd.
HEU : Hitachi Europe Ltd.
HNP : Horizon Nuclear Power Ltd.
*Wylfa and Oldbury

IEP : Intercity Express Programme
PPP : Public Private Partnership
GDA : Generic Design Assessment



Suppliers meeting in the UK

- Continue to support Lithuania’s nuclear power plant construction plans
 - Propose ABWRs to Vietnam and other countries
 - Plan construction of ESBWRs for Teollisuuden Voima Oyj (TVO) in Finland and Dominion Resources, Inc. in the U.S.
- Cooperate with and strengthen support for GE-Hitachi**

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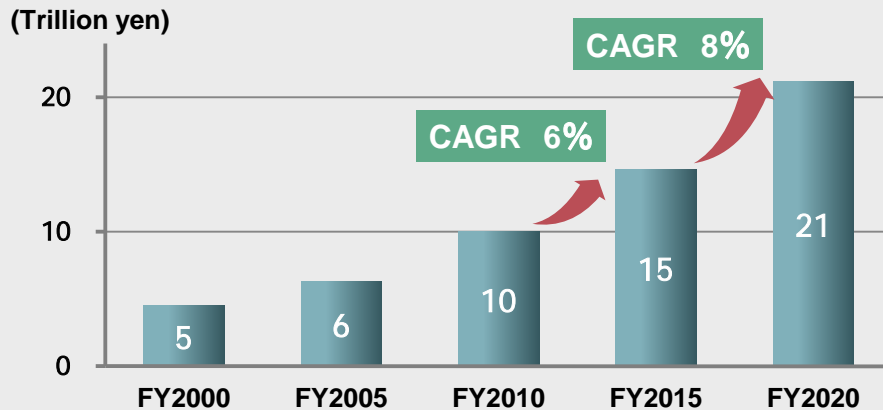
Revenues

FY2012: 70 billion yen → FY2015: 110 billion yen

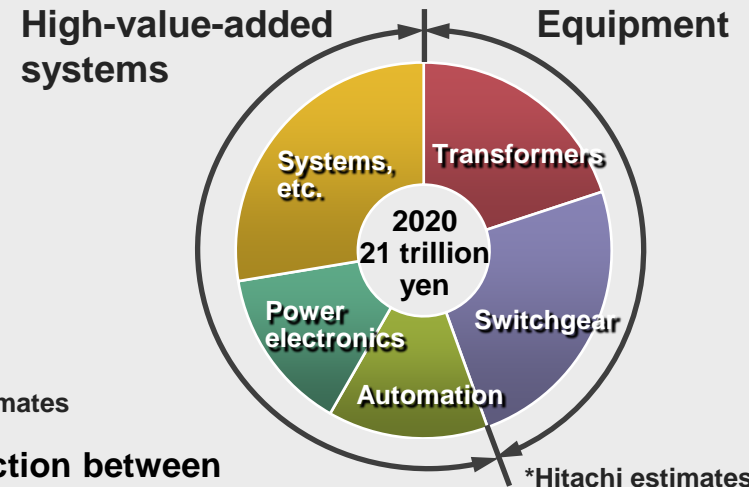
Develop into a core business alongside the thermal power and nuclear power businesses

- Expand T&D business globally based on competitive products and abundant supply experiences
- Strengthen systems integration business fusing equipment and IT

Accelerated Global Market Expansion



*Hitachi estimates



- Japan: Expansion of wide-area grid systems and interconnection between West and East, as well as separation of electricity generation and transmission and introduction of renewable energy
- Global: Expansion of a high-growth and globalized market driven by the economic growth in emerging countries and demand for upgrade in developed countries.

Provide integrated solutions from competitive components to systems

Substation equipment

Switchgear(GIS)



Transformers



Monitoring control systems

Supervisory and control system



Protection and control

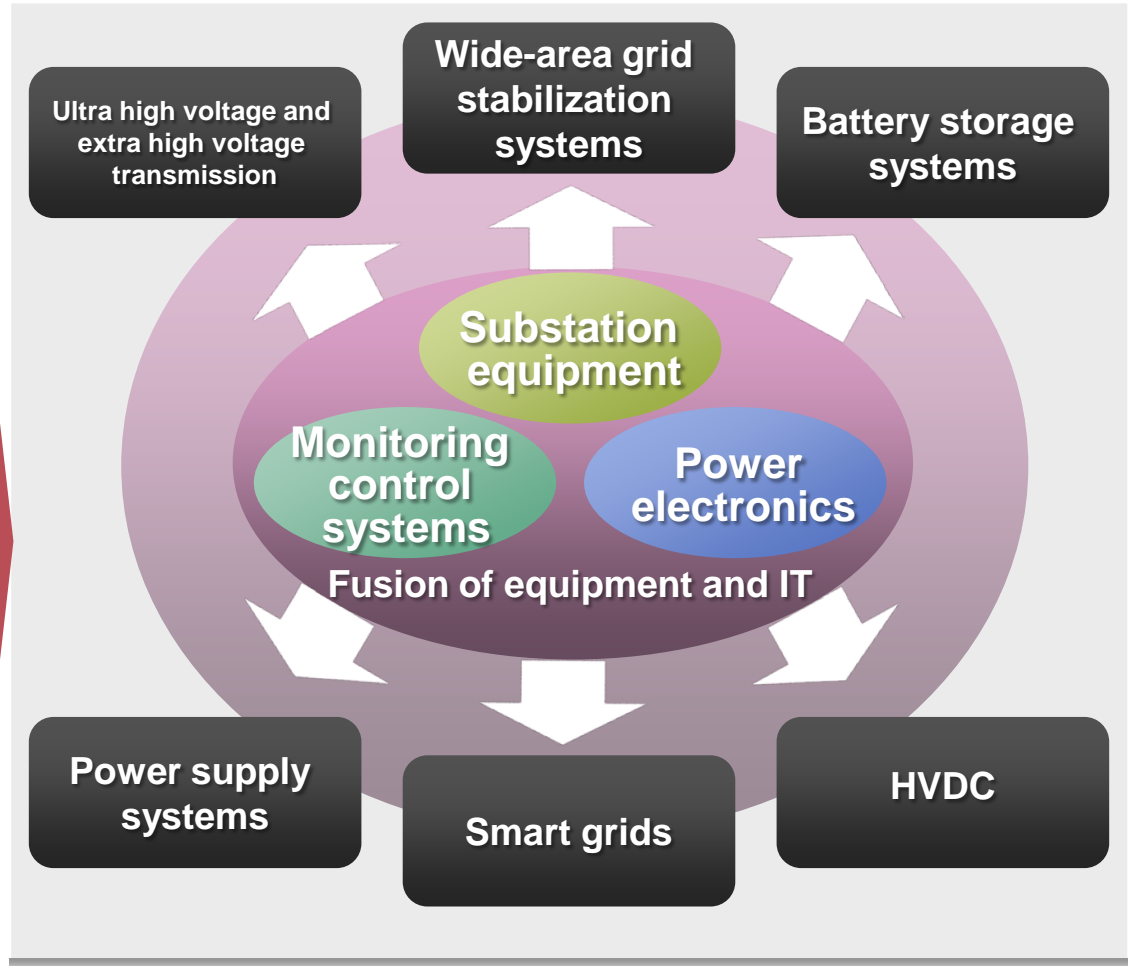


Power electronics

HVDC



STATCOM



STATCOM: Static Synchronous Compensator

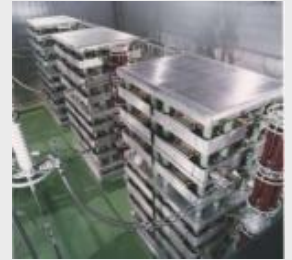
Full turnkey substations

- Provide integrated EPCs based on high-quality equipment and systems
- Supply experiences of more than 200 sites worldwide



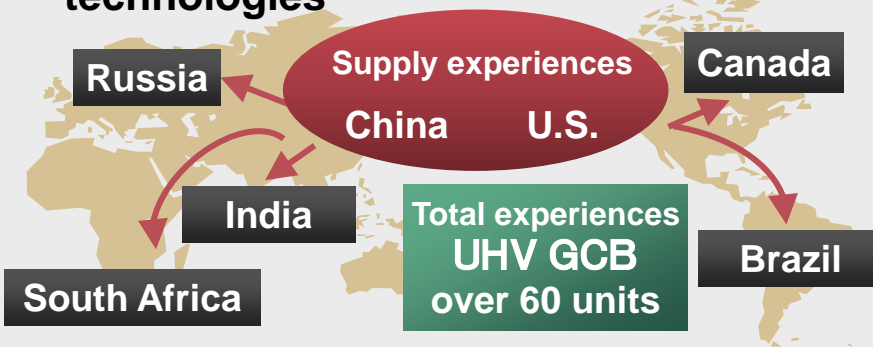
HVDC

- Offer interconnection and transmission with submarine cables
- Support for strengthen wide-area grids with proven and stable operation experiences



Ultra high voltage (UHV) systems(800-1,200kV)

- Minimize long-distance transmission losses
- Expand business with world-leading technologies



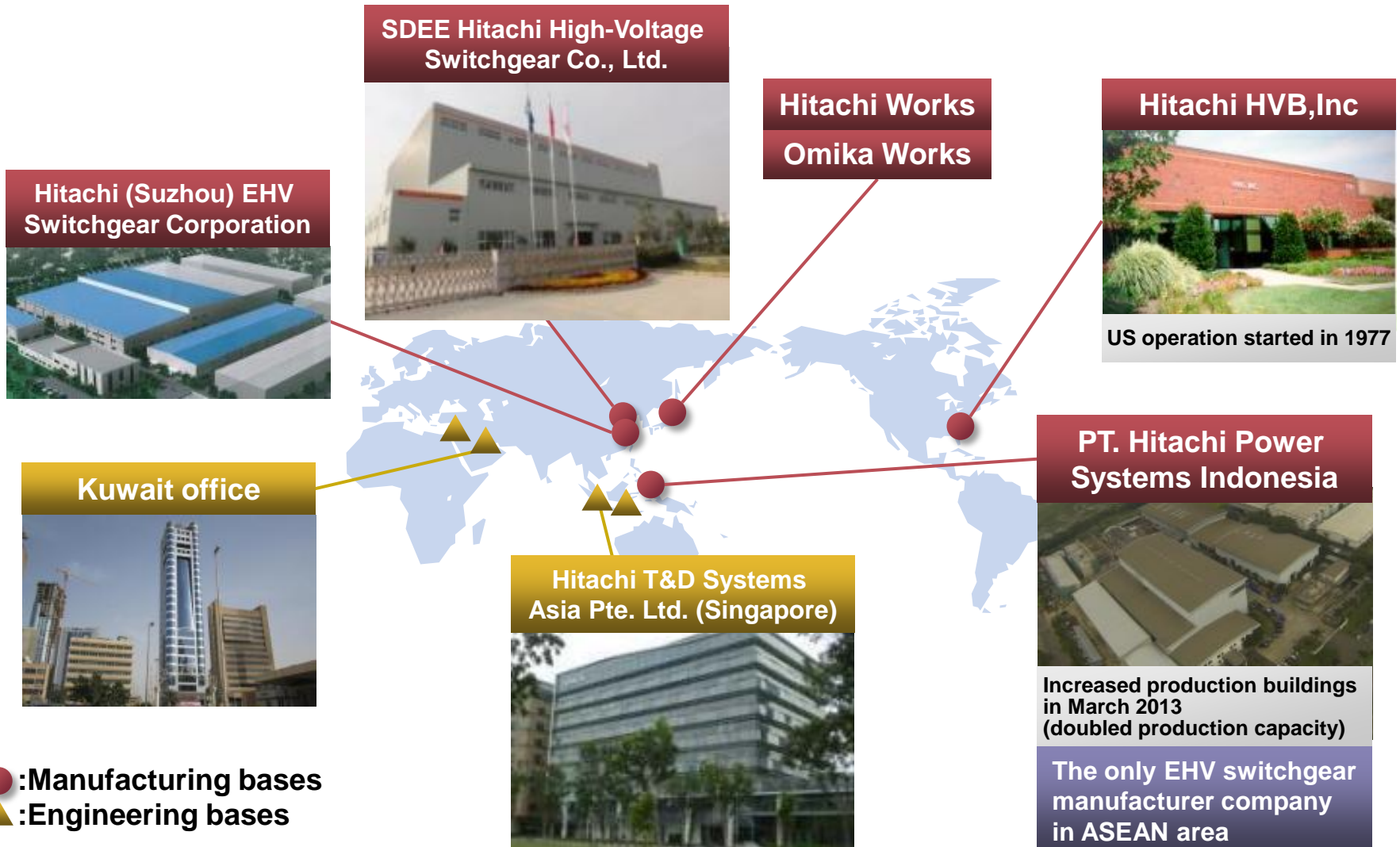
Wide-area grid stabilization systems

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



4-4. Strengthen Global Business Framework

Strengthen existing engineering and manufacturing bases, and build new bases



Revenues

FY2012: 160 billion yen → FY2015: 240 billion yen

Renewable Energy Business

- Help create a low-carbon society by wind and photovoltaic power systems
- Provide integrated services extending from grid connection and construction to maintenance, operation and monitoring



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

Wind Power Systems

- Won orders for more than 100 x 2 MW-class Hitachi wind turbines to date

No.1 Japan market share in 2012*

- Offshore initiatives (commenced trials of experimental offshore floating wind farm projects: Fukushima, Goto Islands)
- Development of 5 MW-class, lightweight Hitachi wind turbines
 - Field test in 2014, commence sales in 2015

Photovoltaic Power Systems (Mega Solar)

- Coordination ability trusted by operators
 - Extensive track record in large-scale projects
 - World-class core product lineup, including power conditioners (PCS)

Battery System and Control Systems for Easing Output Fluctuation

- Conducting demonstration trials with NEDO and others in locations around the world

Image of Offshore Wind Farm Using 5 MW Wind Turbines



Japan's Largest class Mega-Solar Systems (82 MW)



- Oita Solar Power
 - Total area: approx. 1km²
(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)

*Source: A BTM Wind Report: World Market Update 2012

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

Operating Track Record

- Outstanding operational track record for more than 10 years in the U.S. and Japan
- Delivered Japan's first proton beam spot scanning irradiation system (scheduled to begin offering treatment in FY2013)
- Construction underway at three famous hospitals in the U.S.



Nagoya Proton Therapy Center



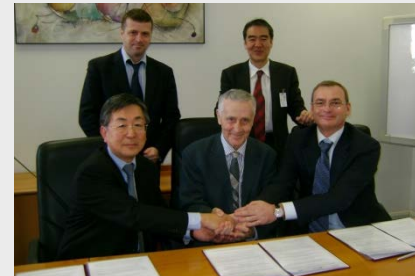
U.S. Minnesota



U.S. Tennessee

Market Prospects and Global Sales Promotion Activities

- 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



Target: over 30% market share

Hitachi will be leading energy solutions business

Energy shortages

Environmental problems

Fund shortages

Energy security

Grid stabilization

Various issues and needs among countries, regions and power customers

Human resource development

Optimal distributed power source demand

Renewable energy introduction

Energy grand design formulation

Provide optimal solutions combined to match customer needs

- Components
- Systems proposals
- Service enhancement
- IT integration
- Finance and leasing
- Thermal power generation solutions
- Hitachi Group's collective capabilities

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5. Expand Service Business

Revenues

FY2013:140 billion yen ➔ FY2015:210 billion yen

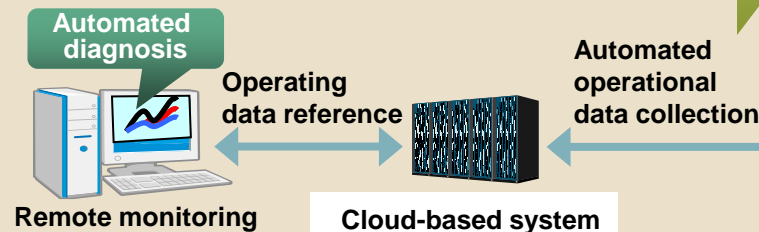
Expand preventive maintenance and enhanced maintenance services

- 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



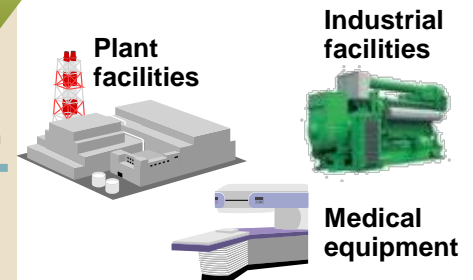
Predictive diagnosis system

Learns facility operations automatically and detects abnormal conditions



Propose predictive diagnosis and maintenance to customers

Customer facilities



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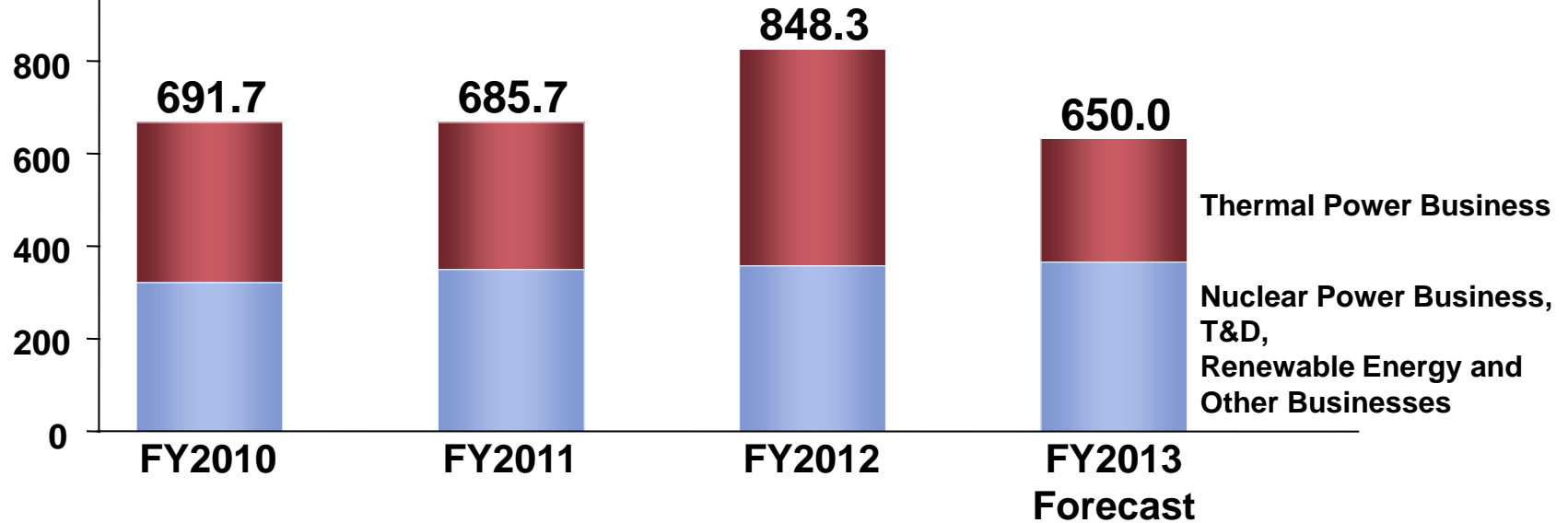
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6-1. Orders

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

Order received
(Billion yen)

1,000



Main FY2012 Orders

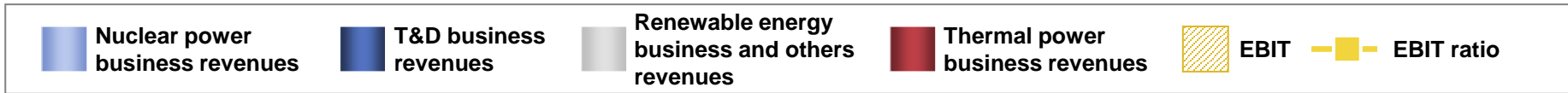
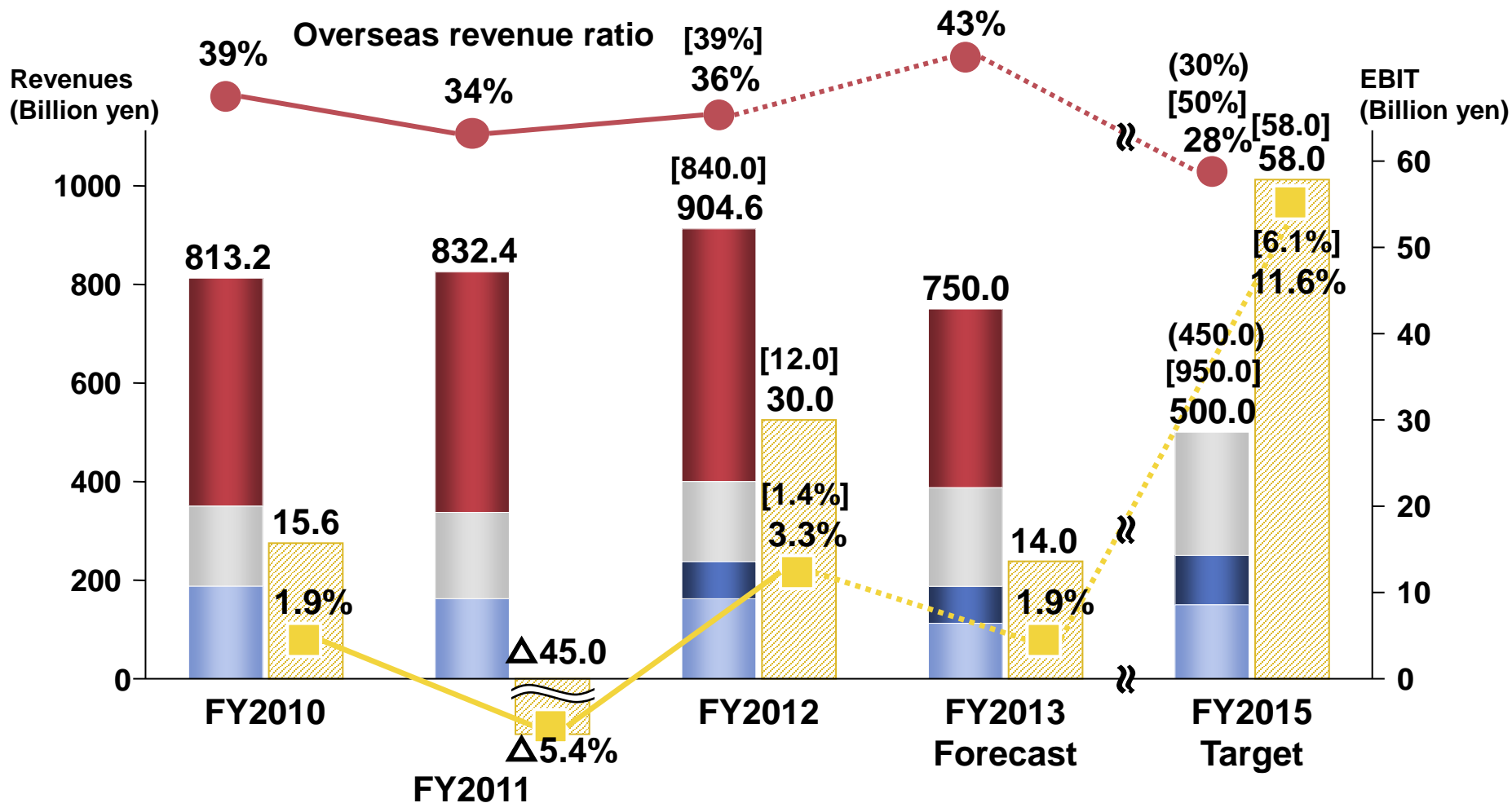
Thermal: large projects in India, Poland, South Korea, etc.

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

6-2. Business Performance Trends



*1: [] Figures announced on June 14, 2012 (EBIT and the EBIT ratio were calculated based on previous forecasts)

*2: () Figures announced on June 14, 2012 excluding the thermal power business

6-3. Differences from Previous Forecast

■ FY2012(Results)-FY2015(Target)

(Billion yen)

		FY2012(Results)	FY2015(Target)
Revenues	Previous forecast	840.0	(450.0) 950.0
	Results and revised forecast	904.6	500.0
EBIT	Calculated based on previous forecast	12.0	58.0
	Results and revised forecast	30.0	58.0
Overseas revenue ratio	Revenues	39%	(30%) 50%
	Results and revised forecast	36%	28%

() Figures exclude the thermal power business

■ Main differences

	FY2012(Results)	FY2015(Target)
Revenues	Saw higher revenues in the thermal power systems business, etc.	Targeting expansion in growth and service business, etc., despite delays with the construction of new nuclear power plants
EBIT	Reflects increased revenues, etc.	Maintaining previous target

6-4. FY 2013 Forecast

FY2012 Results and FY2013 Forecast

(Billion yen)

	FY2012(Results)	FY2013(Forecast)	YoY
Revenues	904.6	750.0	83%
EBIT	30.0	14.0	Δ16.0

Revenues

Forecasting decrease in revenues, due to lower sales from preventive maintenance services for nuclear power generation systems in Japan, and the establishment of a joint venture in thermal power systems with Mitsubishi Heavy Industries, Ltd. scheduled for January 2014.

Projecting solid growth in revenues in the T&D, renewable energy and other businesses

EBIT

Forecasting decrease in EBIT, in line with the projected decrease in revenues.

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The World Market Leader Advancing the Future Global Society with Evolutionary Energy Technologies

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 ratio: 11.6%**
- **Gross margin: 3 point improvement (Vs. FY2012)**
- **SG&A expense ratio: Hold steady (Vs. FY2012)**

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.

Factors that could cause actual results to differ materially from those projected or implied in any “forward-looking statement” and from historical trends include, but are not limited to:

- economic conditions, including consumer spending and plant and equipment investment in Hitachi’s major markets, particularly Japan, Asia, the United States and Europe, as well as levels of demand in the major industrial sectors Hitachi serves, including, without limitation, the information, electronics, automotive, construction and financial sectors;
- 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 segments;
- 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;
- the possibility of cost fluctuations during the lifetime of, or cancellation of, long-term contracts for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- 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 success of alliances upon which Hitachi depends, some of which Hitachi may not control, with other corporations in the design and development of certain key products;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- 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.

The factors listed above are not all-inclusive and are in addition to other factors contained in other materials published by Hitachi.

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Inspire the Next