

Hitachi IR Day 2014

June 12, 2014 Katsumi Nagasawa

Vice President and Executive Officer President & CEO, Power Systems Company Power Systems Group Hitachi, Ltd.



#### **Contents**

- 1. Business Overview, Performance Trends and Targets
- 2. Market Trends and Competitive Environment
- 3. Business Policy and Growth Strategy
- 4. Orders received and Differences From Previous Forecast
- 5. Conclusion

## 1-1. Main Business segments and composition ratios



Aim for growth and a highly profitable business framework, focusing on the Nuclear Power, Transmission & Distribution, and Renewable Energy businesses

#### Nuclear Power Business(27%)



Nuclear power plants(ABWR)

#### Transmission & Distribution Businesses (20%)



GIS: (Gas Insulated Switchgear



Gas circuit breaker Transformer

#### Renewable Energy Businesses(17%)



Photovoltaic power generation systems (Mega solar)



Wind power generation systems

#### Energy Solution(13%)



Power generation business

#### Others(23%)



Remote monitoring



Predictive diagnosis system

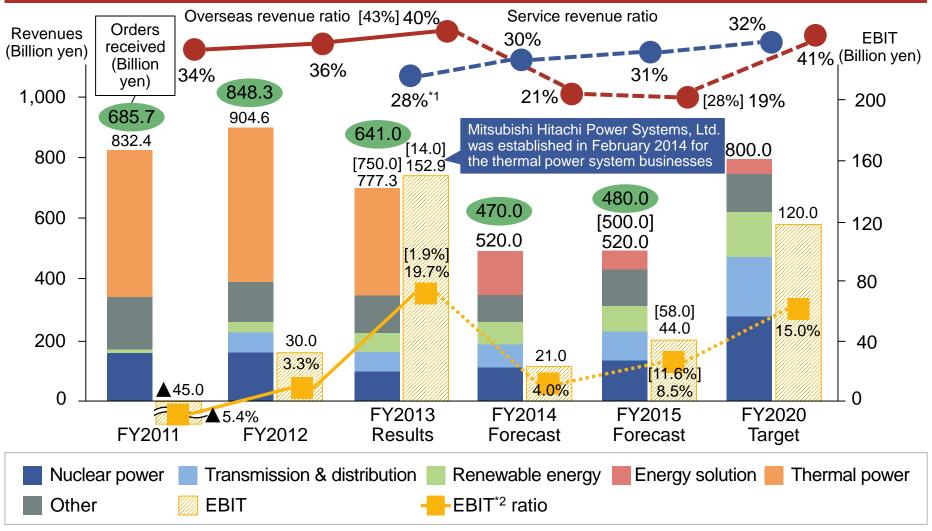
ABWR: Advanced Boiling Water Reactor

Percentages in ( ) are the composition ratios by business of the ¥520 billion revenue forecast for FY2015

### 1-2. Business Performance Trends



## Rebuild the business platform and aim for growth and high earnings



Figures in [] were announced on June 13, 2013

<sup>\*1</sup> Excluding the portion of thermal business transfers \*2 EBIT : Earnings before Interest and Taxes



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## 2-1. Market Trends & Prospects



#### **Market Trends**

#### Japan

: Positioning of important power sources

Renewable energy: Market expansion by continuing the FIT system

Transmission & : Rapidly changing market due to changes in distribution electric power business laws

Nuclear power

Retail liberalization (2016) and separation of power generation and power distribution (2018)

#### Overseas

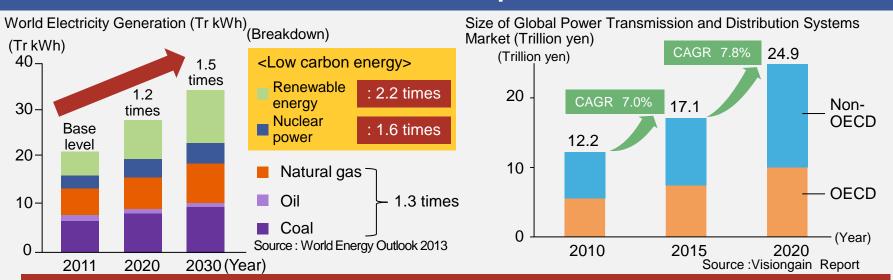
Nuclear power : Many countries going ahead with plans

Transmission & distribution

Side effects of renewable energy expansion: Increased demand for power grid upgrades,

grid stabilization systems, and aging transformer substation renovations

### **Market Prospects**



Markets are driven by low carbon energy and power grid interconnection

## 2-2. Main Structural Reforms to Date



FY	~2011	2012	2013	2014~
Growth businesses & strategic investments	<b>■</b> Inci (Ja	electric power distribution infras (April 2012 & June 2013: Russia Strengthened fusion of transmis machinery and information cont (April 2012: Business succession Corporation)  Built an integrated fram (July 2012: Business to reased manufacturing capabilities on 2011: Completed plant's new but Entered Ul	a, May 2013: Mongolia) ssion & distribution business rol technologies on from Japan AE Power Systems  Strengthe transform (Jan. 201 Transforr  Strengthened product (June 2013: Expand fa Systems Indonesia) mework from manufacturing to sale ransfer from Fuji Heavy Industries of wind power generators	Strategic G-SCM of the transmission & distribution business (Jan. 2015: Scheduled to establish Middle East base)  ened production capabilities of ters 4: Established Hitachi Fortune ter, Inc.) ion capabilities of GIS acilities of PT. Hitachi Power  es of wind turbines Ltd.)
Strengthened bases	(Oct. 201	ned Hitachi Mitsubishi Hydro Corpo 1) tachi GE Nuclear Energy		ablished Mitsubishi Hitachi Power stems, Ltd. (Feb. 2014) Solutions, Ltd. (April 2013)

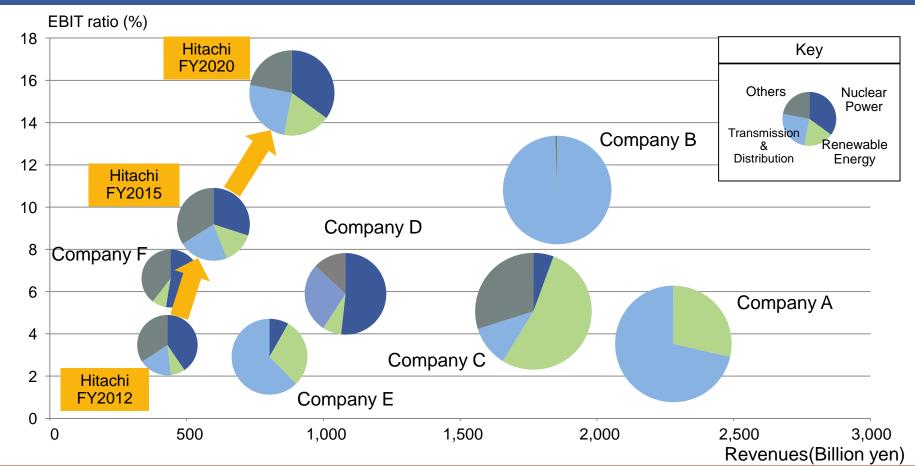
Strengthened platform by forming partnerships and continued strategic investments in the low-carbon energy field

GIS: Gas Insulated Switchgear G-SCM: Global Supply Chain Management

## 2-3. Vision and Global Position



# Provide the market with optimum solutions through powerful machinery and information control technologies



## Rebuild business platform and aim for growth and high earnings

<sup>\*</sup>Hitachi's estimates of each company's revenues (excluding thermal power business) or EBIT ratio (size of pie chart indicates revenue size) (Base year FY2012)

<sup>\*</sup>Operating income ratio for companies A, C, D and F EBITDA margin for Company B



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## 3-1. Basic Policy



#### Become a major global player that is increasingly competitive around the world

- **n**Execute global growth strategy
  - Strengthen global operations (Make progress as a local player)
  - Leverage abundant experience in EPC management (Thermal Power & Nuclear Power → Transmission & Distribution and Renewable Energy)
- nTransform into a strong, high-earning business
  - Accelerate promotion of Hitachi Smart Transformation Project

#### FY2015 Forecast

- nRevenues: 520 billion yen
- nOverseas revenue ratio: 19%
- mEBIT ratio: 8.5%
- nServices revenue ratio: 31%

#### FY2020 Targets

- nRevenues: 800 billion yen
- nOverseas revenue ratio: 41%
- **n**EBIT ratio: 15%
- Services revenue ratio: 32%

## 3-2. Cost Structure Reforms



## **Accelerate promotion of Hitachi Smart Transformation Project**

Cost reduction target: 53 billion yen*			
Production Costs  n Upgrade production technologies of global manufacturing bases n Strengthen development capabilities in core production technology at mother factories			
Direct Materials Costs	n Rebuild global supply chain and expand overseas procurement ratio FY2012: 11% (Excluding thermal power business) FY2015: 21%		
Indirect Costs	<ul> <li>n Introduce and develop shared Group services for overseas Group companies</li> <li>n Re-evaluate, reduce and streamline back-office operations</li> </ul>		

## Strengthen cash flow management

- nStrengthen project management and improve profitability
- nFurther visualize and strengthen grasp of dynamics of inventories and procurement costs
- nStrengthen cash flow management

<sup>\*:</sup> Cumulative for FY2011-FY2015

## 3-3. Strengthen the proposal-based sales for solution business



## [Overseas] Strengthen account activities for prioritized customers

- nPromote transformation from conventional approach to solution provider approach
  - Strengthen strategic activities in accordance with management policies, investment plans, and customer needs
- nStrengthen alliances with overseas engineering and trading companies
  - Develop sales and marketing strategy suited to characteristics of each region by strategic cooperation

# [Japan] Strengthen marketing framework for rapidly changing electric power markets

- nRespond to the increasingly borderless nature of the energy industry
  - Create and provide new businesses across the Group and establish New Business Planning Department\*1
- nRespond to IT demand accompanying the electric power restructuring
  - Strengthen ability to offer total solutions and establish Electric Power Information System Marketing Department\*1

<sup>\*1:</sup> Established April 1, 2014

## 3-4. Nuclear Power Business (1)

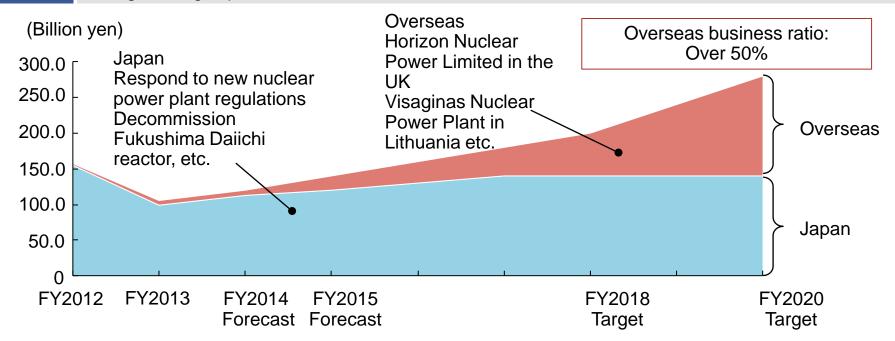


## Expand global business by utilizing world-class safety technologies

	FY2013	FY2014	FY2015	FY2020
Revenues	110.0 Billion yen	120.0 Billion yen	140.0 Billion yen	280.0 Billion yen

# Policy

- n Japan Strengthen initiatives to improve safety and trust as a base load electric power source
- n Overseas Steadily advance projects using technology accumulated in Japan and expand to other countries with nuclear power plans
- Overall Train medium- and long-term personnel and advance projects by strengthening engineering capabilities



## 3-5. Nuclear Power Business (2)



#### Respond to new regulatory standards

- Promote countermeasures to improve the safety margin
  - Venting filter System (cooperation with AREVA)
  - Fire protection (cable wrapping) etc.
- Respond to major accident management at facility





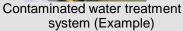
Venting filter

Fire protection (Example)

# **Fukushima Daiichi reactor decommissioning business**

- n Highly contaminated water treatment facilities
  - Uses advanced capability, state-of-the-art technology (Cs/Sr simultaneous adsorption agent, etc.)
- n Develop new technologies
  - Launched 5 models of exploration equipment and 10 additional models under development









Exploration robot underneath storage container (Example)

#### **UK: Horizon Nuclear Power Limited project**

- Accelerate construction preparation by establishing UK engineering base
  - Scheduled to obtain Generic Design Assessment (GDA) in 2017
  - Promote EPC tasks for construction
- n Cooperation with HM Treasury on UK Guarantees Scheme



Wylfa Newydd planned construction site

#### Lithuania: Visaginas NPP project

- Preparation of Project Company Establishment (PCO)
- Human resources development program with Tokyo Institute of Technology and JICC
- n Expand synergies with the UK project

EPC: Engineering Procurement Construction NPP: Nuclear Power Plant JICC: JAIF International Cooperation Center

# 3-6. Transmission & Distribution Business (1)

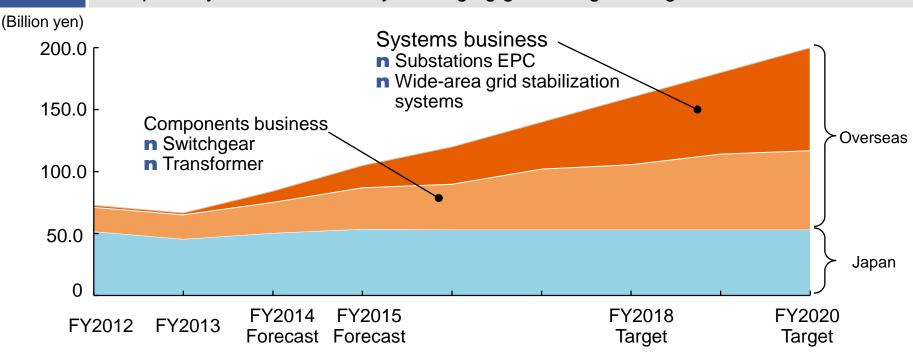


## Expand business by strengthening global operations

	FY2013	FY2014	FY2015	FY2020
Revenues	70.0 Billion yen	80.0 Billion yen	100.0 Billion yen	200.0 Billion yen
Overseas revenue ratio	32%	40%	50%	Over 70%

# Policy

- **n** Expand components business by extending global production framework
- n Expand systems business by leveraging global engineering framework



# 3-7. Transmission & Distribution Business (2)

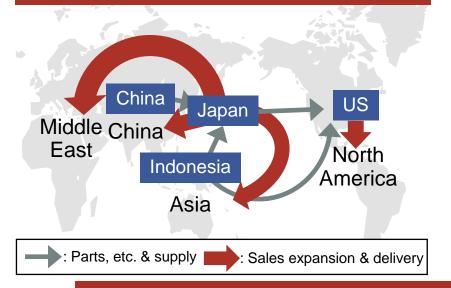


## Expand components business by extending global production framework

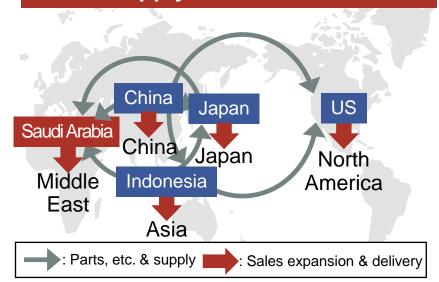
#### Achieve high quality and low costs through supply chain management

- n Achieve further cost reductions through standardization (switchgear) & modular design (transformers)
- Make progress as a player in growth markets (Developed countries: replacement demand; Emerging countries: build infrastructure)

#### **Export method (conventional)**



#### Supply chain method



Establish 4th worldwide strategic base in Middle East following China, Asia and the US (Jan. 2015)

# 3-8. Transmission & Distribution Business (3)



## Expand systems business by leveraging global engineering framework

#### Promote transformer substation EPC business by using the EPC platform



## **Project integration management**

#### **Achievement of EPC minimum cost**

- **n** Use thermal & nuclear power EPC platforms
- Higher efficiency in construction by using 3-D technology
- n Achieve cost reduction of local execution of work through remote supporting
- n Strengthen links with outstanding EPC partners
- n Utilize low cost engineering bases
- Utilize global procurement bases

# 3-9. Transmission & Distribution Business (4)



## Expand systems business by leveraging global engineering framework

#### Accelerate wide-area grid stabilization systems business in North America

Completed joint research on grid stabilization systems with US BPA\*1 in February 2014

Plan to later deploy in Europe and Asia



Completed image

Conduct storage system demonstration testing in the power trading market for ancillary services\*2 with US Demansys Energy, LLC (Start in summer of FY2014)

Plan to expand the business at hundreds of sites across the US



Side of a container

<sup>\*1</sup> BPA: Bonneville Power Administration of the US Department of Energy (One of the 10 major US power companies)

<sup>\*2</sup> Ancillary services: Used in adjustment power trading when renewable energy is introduced on a massive scale with the aim of stabilizing the electric power grid by absorbing the short-term power fluctuations due to weather-related factors

## 3-10. Renewable Energy Business



# Strengthen business by maintaining the top share in the wind power market and securing orders in the solar power market

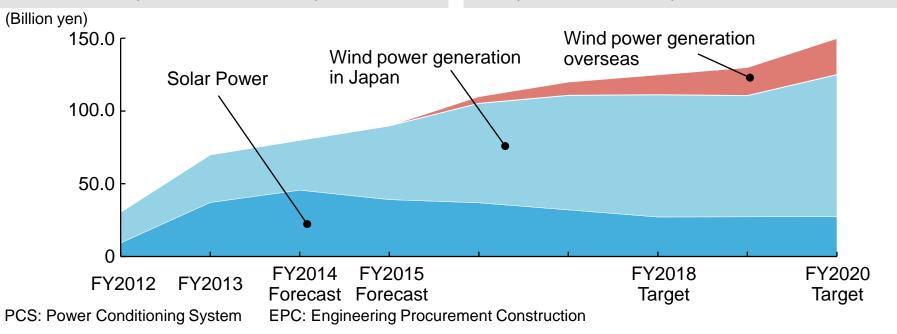
	FY2013	FY2014	FY2015	FY2020
Revenues	70.0 Billion yen	80.0 Billion yen	90.0 Billion yen	150.0 Billion yen

#### Wind Power

- n Aim to increase share in Japan (currently 48%) → over 50%
- n Develop 5MW offshore wind turbines
- n Overseas development based on domestic performance

#### Solar Power

- Increase EPC orders against the backdrop of abundant results
- Strengthen competitiveness of world-class PCS
- n Propose solutions and expand services



## 3-11. Renewable Energy Business: Wind Power Systems



### Maintain top share in Japan and extend to the offshore market

Maintain top share in Japan by developing new models and strengthening proposal capabilities

#### **Expand the lineup and menu of services**

- n Development and demonstration of improved 2MW model (Improve power generation output for low wind speeds, etc.)
- n Development and demonstration of 5MW model (Sales start in FY2015; for large system needs for offshore use)
- n Established Hitachi Wind Power (Utilized accumulated electric power business operation expertise and proposal-making capabilities)
- **n** Expand O&M and service businesses

# Create overseas offshore markets based on domestic performance centered on Asia

Propose 5MW model for offshore operations to regions assessed suitable for strengths of downwind-type wind power, including occurrence of typhoons, earthquakes and lightning



2MW demonstration model for low wind speeds



Image of 5MW model

## 3-12. Renewable Energy Business: Photovoltaic Power Systems



## **Expand EPC, PCS, and service business**

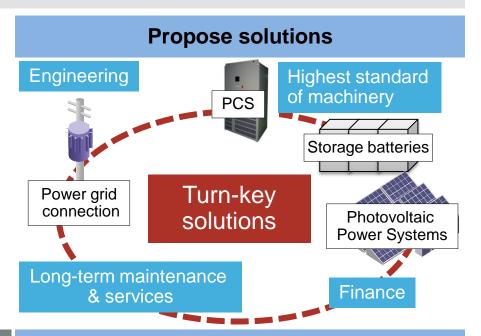
- n EPC:Win steady orders for large domestic FIT projects against the backdrop of abundant coordinated results
- n PCS:Increase orders won by strengthening product features (capabilities, performance, cost competitiveness)
- Service: Propose solutions, expand power selling business, and expand monitoring and maintenance services

# Japan's Largest class of Mega-Solar Systems (82 MW) Starting operation in March 2014



#### nOita Solar Power

Total area: approx. 1 km<sup>2</sup> (the area of approx. 22 Tokyo Domes) Panels: approx. 340,000 (approx. 500 km when laid down end to end, the distance between Tokyo and Osaka)



### **Expand monitoring & maintenance services**

Newly developed Hitachi's original string monitor Monitors deterioration and breakdowns of PV module

EPC: Engineering Procurement Construction PCS: Power Conditioning System

#### 3-13. Service Business



# Increasing sophistication and earnings of maintenance services business

# Expand business by utilizing maintenance services platform

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

- n Gas engine power generation facilities
- n Uninterruptible Power Supplies (UPS)
- Wind power generation systems / Mega solar power systems
- n Water supply and sewage plants

# Further expand base utilization of targeted products

- Service Centers 36 locations
- Sales Branches, etc. 11 locations
  Factories 19 locations

(Example of Hitachi Power Solutions Co., Ltd.)



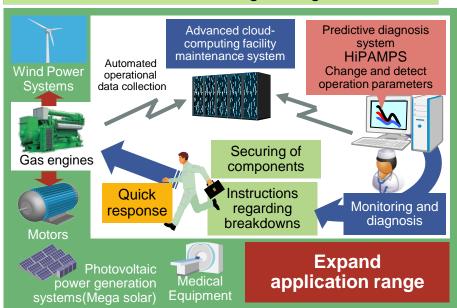
ICT: Information and Communication Technology

# Increase sophistication of maintenance services to improve profitability

"Components X IT" (ICT, predictive diagnosis system, and big data)

#### Higher sales revenues

- n Advanced maintenance services
- Service solutions for solving management issues



## 3-14. Energy Solutions Business



# Expand business by proposing solutions in accordance with grasping significant changes in the power market

#### **Customers**

Power generation business, Manufacturing industry, Multi-use retail facilities, etc.

Conspicuous and potential energy-related needs

#### **Proposal solutions**

- n Distributed power systems & storage systems
- n Power generation operation services
- Ancillary/Energy trading support services
- **n** Joint creation of new energy services business, etc.

### massing team capabilities of One Hitachi

# Propose solutions suiting customer needs through Group comprehensive power

- Power generation facilities and equipment
  - Mitsubishi Hitachi Power Systems, Ltd.
  - Hitachi Mitsubishi Hydro Corporation
  - Hitachi GE Nuclear Energy, Ltd.
- Power grid and power transmission and distribution technologies
  - Power Systems Company

- n Synergies with IT
  - Information & Telecommunication Systems Company
  - Infrastructure Systems Company
- n Advanced maintenance services
  - Hitachi Power Solutions, Ltd.

- n Finance and leasing
  - Hitachi Capital, Ltd.
- Integrated performance and expertise
  - Power Systems Company



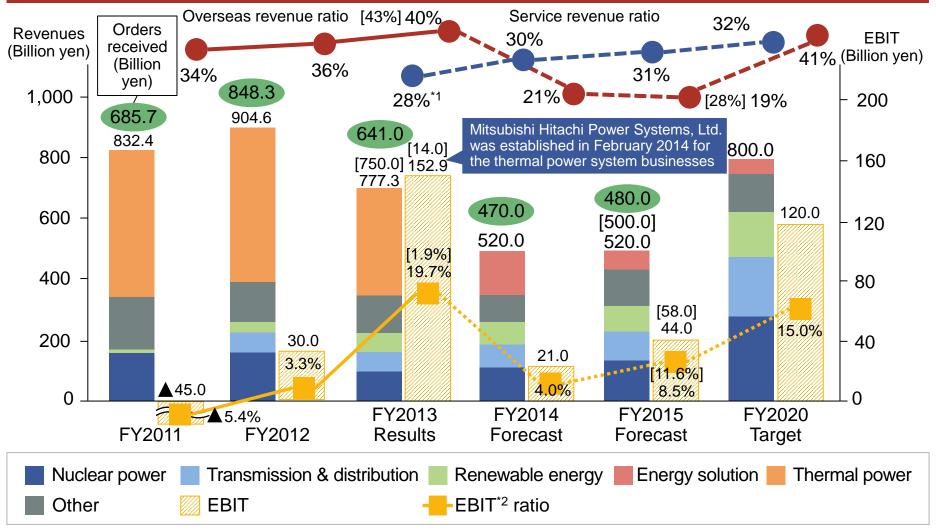
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### 4-1. Business Performance Trends



## Rebuild the business platform and aim for growth and high earnings



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## 4-2. Differences From Previous Forecast



n FY2013 Actual & FY2015 Forecast (): Figures do not include thermal-related and transferred businesses (Billion yen)

		FY2013 (Results)	FY2015 (Forecast)
	Previous forecast	750.0	500.0
Revenues	Results and revised forecast	<b>777.3</b> (330.0)	<b>520.0</b> (450.0)
EBIT	Previous forecast	14.0	58.0
	Results and revised forecast	152.9	44.0
Overseas revenue	Previous forecast	43%	28%
ratio	Results and revised forecast	40%	19%

#### mMain differences

	FY2013 (Results)	FY2015 (Forecast)
Revenues	Impact of changed establishment date of Mitsubishi Hitachi Power Systems, Ltd.	Inspection and review impact of establishment of Mitsubishi
EBIT Valuation gain on thermal business integration		Hitachi Power Systems, Ltd.

#### Improvements in gross margin and SG&A expense ratio (from FY2012)

	FY2013 (Results)	FY2015 (Forecast)
Gross margin	0.6 point improvement	0.6 point improvement
SG&A expense ratio	1.8 point deterioration	0.1 point improvement



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  - Leverage abundant results in EPC management (Thermal Power & Nuclear Energy → Transmission & Distribution and Renewable Energy)
- Transform into a strong, high-earning business
  - Accelerate promotion of Hitachi Smart Transformation Project

# FY2020 Targets

- nRevenues 800 Billion yen(Overseas revenue ratio 41%)
- nEBIT ratio 15.0%
- nServices revenue ratio 32%

## **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:

- n 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:
- n 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;
- n uncertainty as to Hitachi's ability to access, or access on favorable terms, liquidity or long-term financing;
- n uncertainty as to general market price levels for equity securities, declines in which may require Hitachi to write down equity securities that it holds;
- n 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;
- n rapid technological innovation;
- n 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;
- n 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;
- **n** fluctuations in product demand and industry capacity;
- n 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:
- n increased commoditization of information technology products and digital media-related products and intensifying price competition for such products;
- n uncertainty as to Hitachi's ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business:
- n uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness;
- **n** uncertainty as to the success of cost reduction measures;
- n 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;
- n 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;
- n uncertainty as to Hitachi's access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- n 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;
- **n** the possibility of incurring expenses resulting from any defects in products or services of Hitachi:
- **n** the potential for significant losses on Hitachi's investments in equity method affiliates;
- **n** the possibility of disruption of Hitachi's operations by earthquakes, tsunamis or other natural disasters;
- n 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;
- n uncertainty as to the accuracy of key assumptions Hitachi uses to evaluate its significant employee benefit-related costs; and
- n 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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