

# Results for the Six Months Ended September 30, 2015 Management Review

November 4, 2015

### **IHI** Corporation

Tamotsu Saito, President and Chief Executive Officer

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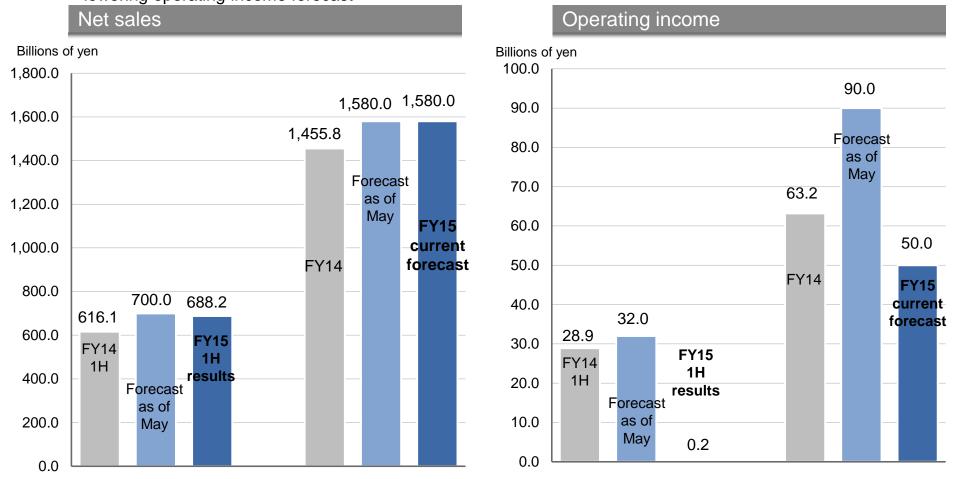
## **Management Overview**

### Review of Six Months Ended September 30, 2015 (1)



- Major downward revisions in final year of Group Management Policies 2013
  - In first half, operating income dropped with respect to forecast in May greatly despite slight net sales decline

 For full year, maintaining foreign exchange assumption of ¥115/\$ and net sales forecast but significantly lowering operating income forecast

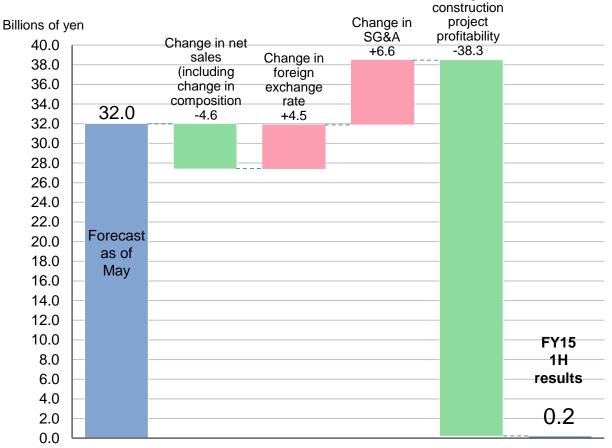


- Average exchange rate for FY14: ¥110.31/US\$
- Forecast as of May: Using official announcement of May 8, 2015 (assumed exchange rate of ¥115/US\$)
- Exchange rate assumption for FY15 forecasts: ¥115/US\$

### Review of Six Months Ended September 30, 2015 (2)



Factors in first half operating income fluctuations from forecast as of May Change in



- Forecast as of May: Using official announcement of May 8, 2015 (assumed exchange rate of ¥115/US\$)
- Exchange rate assumption for FY15 forecasts: ¥119.94/US\$

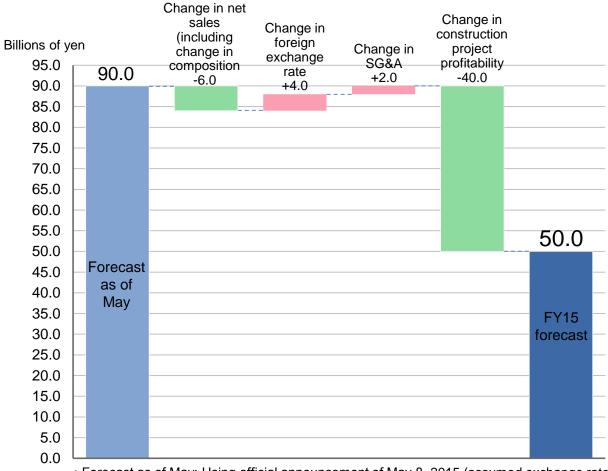
### Results fluctuation factors

- Changes for better or worse in project profitability
  - Resources, Energy and Environment (boilers)
  - Social Infrastructure and Offshore Facilities (floating LNG and offshore structures and bridges)
- Changes in selling, general and administrative expenses (Improved due to period shifts)
  - Industrial Systems and General-Purpose Machinery
  - Aero Engine, Space and Defense

### **Forecasts for Fiscal 2015**



### Factors in full-year operating income fluctuations from forecast as of May



- Forecast as of May: Using official announcement of May 8, 2015 (assumed exchange rate of ¥115/US\$)
- Exchange rate assumption for FY15 forecasts: ¥115/US\$

### Forecast assumptions

- Negative factors in first half
  - Deteriorating profitability of offshore structure business
  - Construction expenses after collapse of catwalk of Izmit Bay Crossing Bridge
  - Additional costs of boiler parts fabrication

- Important second half assumptions
  - Impact of declining oil prices
  - Impact of Chinese economic slowdown

### **Addressing Issues with Major Projects**



#### F-LNG and Offshore Facilities Business

- Results in this area continued to slump since the first nine months of fiscal 2014 owing to process issues at the Aichi
  Works, purchase budget overruns, and functional inadequacies with the projection structure. Management is thus
  deploying the following measures to swiftly address this situation and prevent results from deteriorating further.
- From July 2015, corporate units began overseeing efforts to bolster human resources and more robustly monitor the
  administrative structure (efforts including allocating technicians and experts across IHI Group divisions and reinforcing
  personnel to strengthen monitoring), and provided assistance, including through Group companies, to secure resources
  for SPB tank construction for LNG carriers.
- IHI stopped seeking new orders in this area from the current fiscal year, focusing on work in progress to minimize performance downside risks.
- As of October 21, IHI reinforced the executive structure through such moves as appointing Sadao Degawa, executive vice president, to head Offshore Project &Steel Structures Operations.

#### **Boiler Business**

- There have been differences with customers in some cases regarding recognitions on specifications, leading to design changes and additional costs on local construction, lowering project profitability. In receiving orders, we will leverage risk management practices to factor in diverse specification recognition perspectives to prevent order profitability declines.
- IHI factors in the risks of rising costs from expenses to recover from delays owing to quality issues among subcontractors or for product repairs. IHI will further reinforce local quality controls (in terms of inspection items and systems) at the local production and site work stages as part of more robust quality measures to prevent such issues from arising.

# Numerical Targets for Group Management Policies 2013 (Net Sales, Operating Income)



(Billions of yen)

(Dillions of yen)													
		Net Sales					Operating Income						
			FY2015					FY2015					
	FY2013 (Results)	FY2014 (Results)	Initial Targets	Outlook as of May	Current outlook	FY2013 (Results)	FY2014 (Results)	Initial Targets	Outlook as of May	Current outlook			
Resources, Energy and Environment	344.0	415.3	440.0	480.0	480.0	11.6	24.0	21.0	31.0	24.0			
Social Infrastructure and Offshore Facilities	150.3	188.6	160.0	180.0	180.0	2.3	-3.2	10.0	7.0	-31.0			
Industrial Systems and General-Purpose Machinery	397.8	411.7	430.0	430.0	410.0	15.1	10.2	23.0	14.0	12.0			
Aero Engine, Space and Defense	406.0	434.8	380.0	470.0	490.0	36.7	39.5	19.0	43.0	47.0			
Others	58.9	62.8	60.0	70.0	70.0	1.9	1.2	1.0	2.0	2.0			
Adjustment	-53.2	-57.5	-70.0	-50.0	-50.0	-14.4	-8.6	-4.0	-7.0	-4.0			
Total	1,304.0	1,455.8	1,400.0	1,580.0	1,580.0	53.2	63.2	70.0	90.0	50.0			
Exchange rate	¥99.05/\$	¥110.31/\$	¥80/\$	¥115/\$	¥115/\$	¥99.05/\$	¥110.31/\$	¥80/\$	¥115/\$	¥115/\$			



# **Progress of Group Management Policies 2013**

### **Progress in Large Overseas Projects (1)**



### Dominion Cove Point LNG Expansion project







(MCHE Foundation)

IHI E&C International Corporation and Kiewit Energy Company, have entered into an engineering, procurement and construction contract to develop the Cove Point liquefied natural gas facility located on the Chesapeake Bay in Lusby, Maryland. The IHI/Kiewit joint venture will design, construct, commission and start up the estimated 5.25 million tons per annum liquefaction facility.



(North GTC table top pour)

#### **Key milestones**

April 2013: Contract award

September 2013: DOE authorization to export to

non-Free Trade Countries

September 2014: FERC Order received & accepted March 2015: Groundbreaking Ceremony held

Late 2017: Substantial Completion and

commencement of operations

#### **Current status (Sep 2015)**

- Engineering is approximately 94% complete.
- Procurement of equipment is 96+% complete.
- Construction is 15% complete.
- Piping/structural steel construction have been started.
- Heavy haul equipment delivery and installation has been started.
- Fabrication of piping and structural steel is underway.

### **Progress in Large Overseas Projects (2)**



### Izmit Bay Crossing Bridge in Turkey



Artist's impression of Izmit Bay Crossing Bridge



Location of Izmit Bay Crossing Bridge



Catwalk illumination

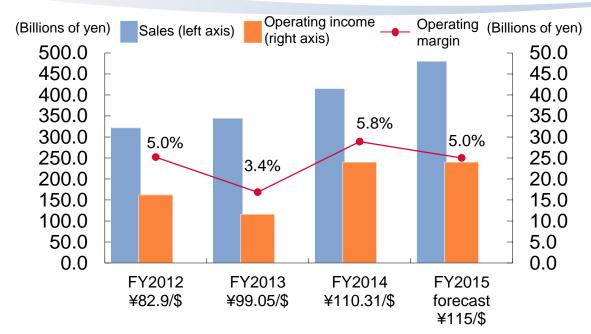
The main cables are currently under construction, with the number of construction managers and site workers increasing for recovery operations, while efforts are under way to enhance construction equipment. Once main cable work ends, followed by construction of main girder, recovery efforts will be stepped up to complete construction.

#### **Project Overview**

- · Type of bridge: Road suspension bridge
- Span: Approx. 3,000m
- · Construction site: Izmit Bay, Turkey
- Total cost of contract: Approx. USD 1.1 billion (consortium of IHI Infrastructure Systems and Itochu Corporation)
- Areas of responsibility: Construction covering a full set of design, production and erection of superstructure and substructure of suspension bridge on a full turnkey basis

### Resources, Energy and Environment







No. 2 generator of Shinko Kobe Power Station that IHI delivered to Kobe Steel

#### Boiler business accommodating solid domestic and overseas demand for coal-fired power plants

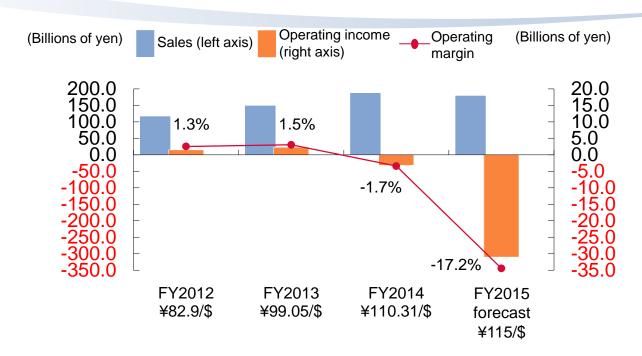
Received a design, procurement, and construction order from Kobe Steel, one of Japan's largest independent power producers, for two 650-megawatt ultra-supercritical coal-fired boilers, which deliver world-leading generating efficiency, and gas-gas heaters. The order was for a project to build a thermal power plant at a Kobe Steel facility. The first and second boiler are slated to start operating in fiscal 2021 and 2022, respectively. IHI won accolades for the efficiency and operability of a large coal-fired boiler that it supplied to the company in 2004.

#### Accelerating development of eco-friendly energy products

Diesel United, Ltd., developed the W6X72X-DF demonstration dual-fuel engine. This low-speed two-stroke engine employs highly safe gas injection in a mixed fuel, lean-combustion system that can reduce NOx emissions to those of four-stroke gas engine. That company held an event to demonstrate the operations of the prototype, which was the world's largest model of its type.

### **Social Infrastructure and Offshore Facilities**







Properties in Toyosu and Sunamachi

### Reinforcing foreign project presence

A joint venture between IHI Infrastructure Systems Co., Ltd., and Larsen & Toubro, India's largest general contractor, received an order from the Dedicated Freight Corridor Corp., whose parent is India's Ministry of Railways, for bridges along a 1,500-kilometer freight route linking Delhi and Mumbai. The mandate is to build 12 steel bridges and five short concrete bridges along 555 kilometers of the Western Dedicated Freight Corridor of the Delhi -Mumbai Industrial Corridor project. The route will slash shipment times, streamlining India's logistics network and contributing to economic development.

#### Real estate business approach

- IHI will endeavor to enhance the value of its property portfolio by focusing on development in Toyosu and Sunamachi (both in Koto City, Tokyo), which offer outstanding potential, to generate stable earnings and cash flows.
- IHI will harness cash from its real estate business to prioritize investments in growth businesses. For acquisitions or other moves requiring major funding, IHI will take a flexible approach that includes divesting some development assets.

### **Outlook for Offshore Facilities Business (Aichi Works)**



#### **Business Overview**

#### Market climate

- Market set to shrink over next three years owing to oil price slump
- High potential demand for FPSO and L-LNG given resource supply and demand over short and medium terms

#### **Competitive advantages**

 Superior position in proprietary aluminum SPB tank technologies (notably in terms of sloshing resistance, inspection and maintenance ease, and design flexibility)



#### Basic policies of offshore facilities business

- 1 Focus operations on aluminum SPB tanks
- Enhance productivity of aluminum SPB tanks while preparing for market recovery by making them pivotal to a business structure transformation
- 2 F-LNG the main target
- Focus on leveraging F-LNG superiority
- Optimize structure and production facilities according to business scale
- Maintain flexible structure and organization according to project volume and allocate management resources
- 4 Pursue partnerships with other companies
- Collaborate with other companies and reinforce operational structure while rebuilding business model



### Reinforce corporate supervision

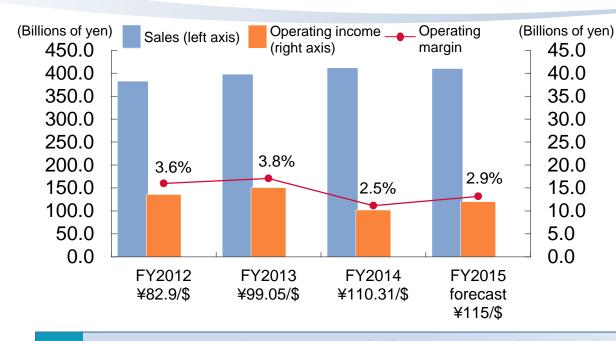
In keeping with portfolio management, strengthen monitoring and determine the appropriate timing for reviewing business viability and changing policies

### Business objectives

- Cultivate offshore development area, which offers demand potential over medium and long terms
- Make business highly profitable, focused on aluminum SPB tanks

### **Industrial Systems and General-Purpose Machinery**







Corn picker that IHI STAR Machinery Corporation and IHI Shibaura Machinery Corporation co-developed for Chinese market

### Impact of Volkswagen emissions scandal on forecasts for vehicular supercharger business

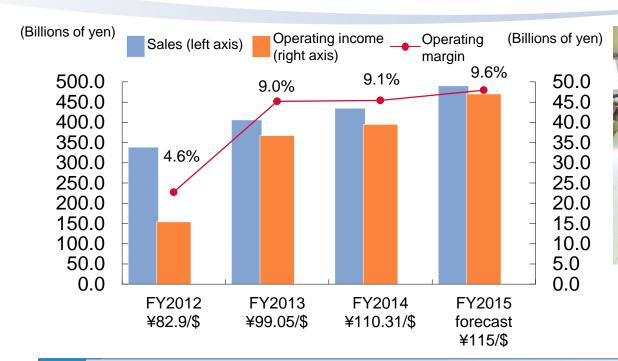
- While Volkswagen and Audi account for around 30% of IHI's vehicular turbocharger business sales, IHI only supplies gasoline models to those automakers. Recalls and other market moves should thus not directly affect IHI.
- Still, this situation could affect all Volkswagen and Audi models because of the negative impact on brand image, so IHI will keep tabs on developments among those customers while carefully managing the overall supply chain and covering an expected downturn in order volumes.

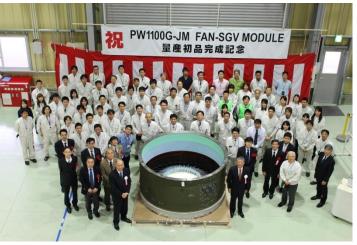
### Cultivating agricultural machinery business worldwide

The IHI Group set up a joint-venture with Yuanda China Holdings Limited of Liaoning Province, China, to operate an agricultural machinery business. The Group's agricultural machinery business focuses on manufacturing and sales in Japan through subsidiaries IHI STAR Machinery Corporation and IHI Shibaura Machinery Corporation, but looks to expand overseas where there is plenty of growth potential, starting by providing high-quality agricultural machinery in China.

### Aero Engine, Space and Defense







Ceremony at IHI Aerospace to commemorate the shipment of the first mass-produced composite material fan case for the PW1100G-JM

### Civil aero engine demand robust

- The Mizuho Aero-Engine Works delivered the initial mass production model of low-pressure compressors for the PW1100G-JM engine for the Airbus A320neo, while the Tomioka Works of IHI Aerospace delivered the first composite material fan cases for that engine.
- Cumulative parts shipments for the GEnx engine for the Boeing 787 and 747-8 reached 1,000 units.

#### Aerospace business expanding

IHI Aerospace received an order for a main engine for a geostationary satellite platform from Boeing Satellite Systems International, Inc., a leading satellite manufacturer that is a wholly owned subsidiary of the Boeing Company. The engine is for the Intelsat 35e satellite.



Forward-looking figures shown in this material with respect to IHI's performance outlooks and other matters are based on management's assumptions and beliefs in light of the information currently available to it, and therefore contain risks and uncertainties. Consequently, you should not place undue reliance on these performance outlooks in making judgments. IHI cautions you that actual results could differ materially from those discussed in these performance outlooks due to a number of important factors. These important factors include political environments in areas in which IHI operates, general economic conditions, and the yen exchange rate including its rate against the US dollar.