

## Social Infrastructure & Industrial Systems Business Strategy

Industrial & Social Infrastructure Systems Company Hitachi Plant Technologies, Ltd. Hitachi Industrial Equipment Systems Co., Ltd. Hitachi IR Day 2011

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### Social Infrastructure & Industrial Systems Business Strategy

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#### **1. Business Overview**

- 2. Market Trends
- 3. Business Policy and Growth Strategy
- 4. Business Performance Trends and Targets
- 5. Conclusion



\*Former Social Infrastructure Systems Company was divided to "Social Infrastructure Systems Company" and "Transportation Systems Company", effective by April 1, 2011.



Industrial & Social Infrastructure Systems Company

# Overall coordination of system engineering services, and solutions sales

Innovate by fusing IT and technologies supporting social infrastructure and industrial systems

Hitachi Industrial Equipment Systems Co., Ltd.

Small & medium-sized components/ services

Hitachi Plant Technologies, Ltd.

Large-sized components/ engineering/construction/ services

### **1-3** Business Overview (3) Basic Growth Strategy Policies





\*1 BOO: Build Own & Operate \*2 BOT: Build Operate & Transfer \*3 O&M: Operation & Maintenance

\*4 EPC: Engineering Procurement & Construction \*5 FM: Facility Management \*6 SCM: Supply Chain Management

### 1-4 Business Overview (4) Business Features



### **1-5** Business Overview (5) Global expansion (1)







Overseas sales bases for Hitachi Plant Technologies, Ltd.

• Overseas sales bases for Hitachi, Ltd.

Co., Ltd.

Overseas sales bases for Hitachi Industrial Equipment Systems Co., Ltd. are omitted

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Overseas Manufacturing/Servicing Bases

| Industrial & Social Infrastructure<br>Systems Company | 1  | (1) |
|---|----|-----|
| Hitachi Plant Technologies, Ltd.                      | 10 | (5) |
| Hitachi Industrial Equipment<br>Systems Co., Ltd.     | 4  | (3) |

\* Figures in brackets indicate joint ventures with local partners and investments

### 1-6 Business Overview (6) Global expansion (2)

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#### Expand and upgrade overseas production bases



Hitachi Aqua-Tech Engineering Pte. Ltd. Production, sales, and servicing of reverse osmosis systems (Became a holly-owned Subsidiary in 2009 Expand its operation base and change the name in 2010)

### 1-7 Business Overview (7) Global expansion (3)





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#### **Market Trends in Japan**

Maturity of equipment market, decrease of investment in construction Increase of upgrade demand as facilities become superannuated

#### **Global Market Trends**

High growth rate in management and operation, as well as EPC Asia and Middle East becoming largest markets in the world



\* Source for by-market information: Global Water Market 2008, Ministry of Economy, Trade and Industry calculations; by-region information: prepared based on the same materials

### 2-2 Market Trends (2) Industrial Systems Business



#### Increasing energy demand centered on emerging economies $\rightarrow$ pressing need to improve energy efficiency

China and India account for most of the rise in global energy demand

This is spurring the oil and gas markets to find supply sources (increasing demand for natural gas as a source of clean energy)

Conversion from resource countries to product export countries (Iron ore  $\rightarrow$  steel products)

#### **Projected Steel Field Capex in** Primary Energy Demand **Emerging Economies** 20,000 16,790 Mtoe Capital Mtoe\* **Expenditures** CAGR Renewable energy (Nominal) %/year **Hydroelectric** 15,000 China Nuclear (2010 - 2015)2015 2010 (US\$ million) India Gas 10,000 Non-OECD China 47,785 78,026 10.3 Oil (Excl. China, India) 5,000 India 7,505 19,697 21.3 OECD Coal 13.644 35.858 21.3 Brazil 1980 2000 2007 2015 2030 2030

\* Mtoe: 1 million tons of oil equivalent, source: Energy Demand-IEA World Energy Outlook 2009 Steel capex - Prepared by Hitachi Research Institute based on Global Insight database



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### **3-1 Business Policy**

#### Innovate by fusing IT and technologies supporting social infrastructure and industrial systems

| Social<br>infrastructure  | Achieve full-scale entry into global<br>markets by expanding the Hitachi<br>Group's water business | <ul> <li>Expand service businesses in Japan</li> <li>Fortify and expand overseas water business</li> </ul>   |  |  |
|---|--|--|--|--|
| Industrial<br>systems   | Expand solutions business to address global needs  | Expand highly efficient, environmentally<br>friendly components, systems, and<br>servicing businesses<br>(Eco factories, oil & gas, steel plant control systems) |  |  |
|   |  | Provide support for the receivery and restarction of   |  |  |
| Recovery<br>Support   | Concentrate management<br>resources on the recovery and<br>restoration of infrastructure           | Provide support for the recovery and restoration of water infrastructure   |  |  |
|   |  | Provide support for the recovery and restoration of factories and production lines   |  |  |
| Overseas<br>Expansion<br>Support  | Provide full support for Japanese<br>companies expanding production<br>bases overseas              | Supply total systems for components, systems, and engineering/construction   |  |  |
|   |  |  |  |  |
| FY2010 Results  |  | FY2015 Targets   |  |  |
| <ul> <li>Revenues: ¥543.3 billion</li> <li>Overseas revenue ratio: 21%</li> </ul> |  | <ul> <li>Revenues: ¥830 billion</li> <li>Overseas revenue ratio: 40%</li> </ul>  |  |  |

#### Achieve full-scale entry into global markets by expanding the Hitachi Group's water business

#### **Revenue Target**





#### **Business Expansion Measures**

| %   | <ul> <li>Expand service businesses in Japan</li> <li>Strengthen product competitiveness</li> <li>Strengthen equipment renewal</li> <li>Expand O&amp;M*1 comprehensive contracts</li> </ul> |
|-----|--|
|     | Fortify and expand overseas<br>water business  |
|     | water business   |
| eas | Provide water environment solutions in<br>emerging economies   |
|     | Strengthen cooperation with local partners   |
|     | Expand business in operation and   |
| n   | management domain  |
|     | Use experience in Maldives   |
|     | Provide total solutions fusing water treatment<br>systems and IT   |
|     | Intelligent water systems  |
|     | Develop greater cooperation with central and<br>local governments  |
|     | ■Use experience in GWRA* <sup>2</sup> and GWSTA* <sup>3</sup>  |
|     |  |

\*1: Operation & Maintenance \*2: Limited Liability Partnership (LLP) Global Water Recycling and Reuse System Association, JAPAN

\*3: Global Water Recycling and Reuse Solution Technology Research Association



#### Develop the water business globally as a "Japanese water major"

### **Provide total solutions**

- Water supply and sewage field (EPC, business operation and management) [Volume zone]
- Reuse water, sea water desalination, industrial-use water and wastewater fields (EPC, operation and management) [Growth zone]
- Regional water infrastructure construction (Hitachi's proposed concept: Intelligent water systems)
- Cultivate new area (Oil & Gas wastewater treatment and ballast water treatment, etc.)

### Hitachi Group strengths

- Advanced water circulation systems (Membrane processing, microorganism treatment, pumps, etc.)
- Advanced information systems (Monitoring, control, simulation, etc.)

### **Regions targeted for sales expansion**

Middle East, Southeast Asia, China, India, South America

#### Hitachi Group's Vision







- \* 1: Major water business groups in 12 western regions (Gansu, Guizhou, Ningxia Hui, Qinghai, Shaanxi, Tibet, Xinjiang Uygur, Yunnan, Chongqing, Inner Mongolia, Guangxi Zhuang)
- \*2: Build Operate Transfer, Transfer Operate Transfer



|                       | Provide total solutions  |
|-----------------------|--|
| India                 | <ul> <li>Undertaking two feasibility studies for water circulation systems for Japan's Ministry of Economy, Trade and Industry(May2011)</li> <li>Participate in project on export of environmentally friendly infrastructure, improve total solution proposals for industrial complexes</li> <li>Recycling of factory wastewater (Sumitomo Corporation, Kansai Electric Power Co., Ltd., Hitachi, Nippon Express Co., Ltd.)</li> <li>Smart community centered on desalination of sea water (Hitachi, ITOCHU Corporation, KYOCERA Corporation, and others)</li> </ul> |
| South<br>east<br>Asia | <ul> <li>Phased introduction of Intelligent Water Systems into water management business in the Maldives</li> <li>Integration of customer data with Male Island facilities using AQUAMAP*</li> <li>Network technologies leveraged to monitor and operate facilities on multiple islands</li> </ul>   |
| Middle<br>East        | Active participation in sewage system construction project in Middle-East  |

\*: Pipeline information system employing computer mapping technology

### Expand solutions business to address global needs

#### **Revenue Target**

Revenues: ¥620.0 billion
 Overseas revenue ratio: Over 40%
 Operating income ratio: 5%



#### **Business Expansion Measures**

- Expand highly efficient,
- environmentally friendly components, systems and services businesses
- Eco factory solutions
  - Drive systems
  - Energy-saving systems (EnMS\*)

#### Oil & Gas

- Expand electric-motor-driven
- mid-scale LNG plant business through order for basic design received from Australia's Eastern Star Gas Limited
- Expand sales of process compressors (Strengthen service system)
- Electric control systems for steel plants Expand orders in emerging economies by strengthening local engineering capabilities: China, India, etc.
- Regions targeted for sales expansion China, Southeast Asia, India, Middle East, South America, Australia



#### **3-8** Growth Strategy (2) Industrial Systems Business (3)



\*1: Controller with communications interface

\*2: Refers to 24 coastal countries and regions, extending from Japan to the Arabian Peninsula, including China, ASEAN countries, India and the Middle East.

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\*: Front-end Engineering Design

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### **3-10 Basic Growth Strategy Policies**



Leverage closely collaborations with Industrial & Social Infrastructure Systems Company, Hitachi Plant technologies and Hitachi Industrial Equipment Systems, and Realizing collective strength

**Total solutions provision** 

Overall coordination of components, systems, EPC, construction

#### Service business expansion

Expand business scope(Lifecycle support) to maintenance for products and plants

#### Acceleration of global expansion

Strengthening of cooperation with local partners and Localizing of production and service bases' operation

#### **One-stop full support**



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### **4** Business Performance Trends and Targets



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- 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 and 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 in Japan, 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 Components & Devices and 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;
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- 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 and synthetic resins or shortages of materials, parts and components;
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- uncertainty as to Hitachi's ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business;
- In uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness and other 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;
- It he possibility of disruption of Hitachi's operations in Japan by earthquakes, tsunamis or other natural disasters, including the possibility of continuing adverse effects on Hitachi's operations as a result of the earthquake and tsunami that struck northeastern Japan on March 11, 2011;
- 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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