

Business Segment Review

Power Systems



Energy & Environment



Machinery, Equipment & Systems

Key businesses: Thermal power generation (natural gas, coal), nuclear power generation, renewable energy, etc.

Basic Strategies

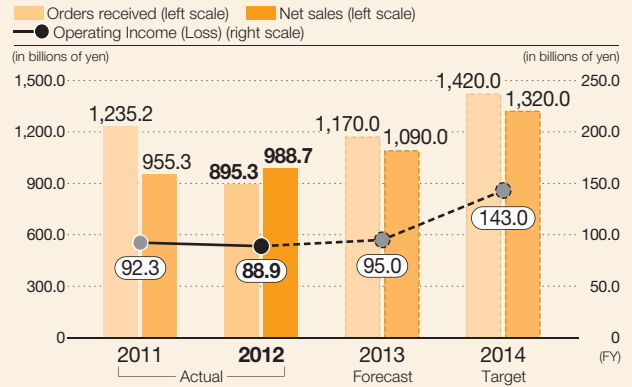
Power Systems

- Develop an overseas network to enhance competitiveness
- Pursue market-tailored business development
- Advance into new businesses and fields

Nuclear Energy Systems

- Promote domestic business by establishing new safety technologies
- Deploy resources to restore TEPCO's Fukushima Daiichi Nuclear Power Station and its future decommissioning
- Promote "selection and concentration" and alliances to accelerate the development of global business

Future Outlook and Targets



Fiscal 2012 Review and Fiscal 2013 Outlook

Amid stiffening competition for orders in Asia, MHI won orders for gas turbines in Thailand and for coal-fired power plants in Vietnam and Japan. Despite this, reflecting the impact of a delay in orders to this period, consolidated orders received were ¥895.3 billion, a decrease from the previous year when large-scale orders in Taiwan and South Korea had been secured.

Consolidated net sales rose year on year to ¥988.7 billion due in part to an increase in sales of thermal power plants. However, operating income decreased to ¥88.9 billion, affected by a delay in operations restarting at the nuclear power plants.

Targets for fiscal 2013 are ¥1,170.0 billion in consolidated orders received, ¥1,090.0 billion in consolidated net sales, and ¥95.0 billion in operating income.

Initiatives for Growth in the Medium to Long Term

In the field of thermal power generation, demand for new construction is continuing to expand, especially in emerging countries, such as the demand for upgrades to aging coal-fired facilities and

environmentally friendly gas-fired facilities. Furthermore, with progress being made in the development of shale gas in the United States and other countries, and with the discovery of enormous gas fields, the price of natural gas is expected to fall worldwide, and so the use of gas turbine combined cycle (GTCC) systems will expand in various countries.

Amid an increasingly fierce business environment, MHI will work to reduce costs and mitigate currency fluctuation risks through expansion of its global procurement and production. In addition, through business integration with Hitachi, which is scheduled for January 1, 2014, MHI will win out against global competition by meeting brisk global demand for thermal power generation systems with high technological capabilities, quality and reliability.

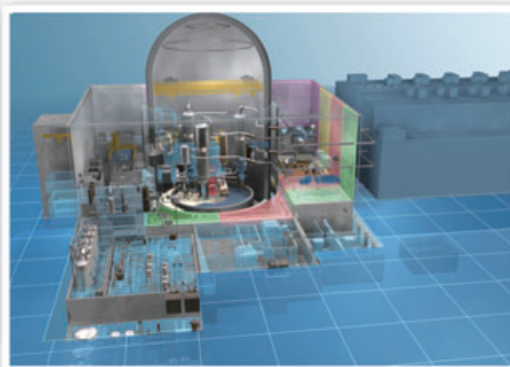
MHI will also accelerate development for offshore wind turbines, and cultivate business with a focus on countries that border the North Sea, especially the United Kingdom and Germany.

In nuclear energy systems, MHI is targeting ¥400.0 billion for overseas new-build sales in fiscal 2014, with longer-term plans to grow this figure to ¥600.0 billion by applying its current domestic business model outside Japan.



▲ Paiton III Thermal Power Plant

▼ ATMEA1 reactor



▲ M501J gas turbine

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Head of Power Systems



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Head of Nuclear Energy Systems



SWOT Matrix

Our strengths, weaknesses, opportunities and threats

- | Strengths | Weaknesses |
|---|---|
| <ul style="list-style-type: none"> □ Ability to accommodate almost all methods of power generation □ Thermal: High efficiency, high output, energy-saving □ Nuclear: Highest level in the world in safety technologies | <ul style="list-style-type: none"> □ Thermal: Low profitability relative to major overseas competitors □ Nuclear: No experience in EPC* overseas
* EPC: engineering, procurement and construction |
| Opportunities | Threats |
| <ul style="list-style-type: none"> □ Thermal, renewable energy: Against a backdrop of heightening environmental awareness, increased need for efficient thermal and wind power generation systems, etc. □ Nuclear: Increased need in emerging countries where the demand for energy is strong | <ul style="list-style-type: none"> □ Thermal: Overwhelming presence overseas by two major competitors □ Nuclear: Stronger presence in world market by South Korean and Russian manufacturers |

Main Projects

Announcement	Delivery	Project
June 2013	2016	First time overseas: Successive orders received in the United States for WJP work* * Water jet peening: mitigates stress corrosion cracking in reactor vessel couplings
May 2013	2023	Cooperation agreement concluded between Japanese and Turkish governments: Japan acquires preferential negotiating rights based on adoption of ATMEA1
February 2013	2014-2015	Order received for four sets of supercritical pressure steam turbines and generators, etc. for delivery to the Saudi Electricity Company (total output: 2,800 MW)
December 2012	2015	Full-turnkey order received for GTCC power plant in Thailand
December 2012	—	Acquisition of the small and medium-sized gas turbine business unit (PWPS) from aeroengine manufacturer, Pratt & Whitney
November 2012	—	Basic agreement with Hitachi for business integration in the field of thermal power generation
March 2012	2014	Series of orders received for 10 state-of-the-art M501J gas turbines for South Korea

Specifically, in the domestic market, MHI will comply with new regulatory standards, which came into force in July 2013. MHI is fully committed to supporting power companies in restarting operations at existing plants, promoting the nuclear fuel cycle at the Rokkasho Reprocessing Plant in Aomori Prefecture, achieving recovery and stable operations at TEPCO's Fukushima Daiichi Nuclear Power Station, and decommissioning aged plants. For the global market, in addition to accelerating the global expansion of MHI's global strategic reactor, ATMEA1, to emerging countries, MHI will make a full-scale entry into the after-sales service market through alliances and its advanced technologies bolstered with a wealth of Japanese construction experience.

By making steady progress on these initiatives, MHI will fulfill its four-part mission as a world-leading integrated nuclear plant supplier, namely, to improve safety, supply stable power, counter global warming and ensure energy security.

Based on these measures for each sector, MHI is targeting consolidated orders received of ¥1,420.0 billion, consolidated net sales of ¥1,320.0 billion and operating income of ¥143.0 billion for this business segment in fiscal 2014.

TOPICS

Test operation begins for large-scale wind power generation system adopting world's first hydraulic drive train

In January 2013, MHI commenced test operation at its Yokohama Dockyard & Machinery Works of a large-scale wind power generation system that adopts a hydraulic drive train in place of a conventional gear-driven system. Based on the results of this test run, MHI will accelerate its development of offshore wind power generation systems in the 7 MW class, with installation and operation of an onshore demonstration unit in the United Kingdom to begin in 2013.

Based on the digitally controlled hydraulic technologies of Artemis Intelligent Power, Ltd., a U.K. venture company acquired in 2010, MHI put the new hydraulic drive train to practical use with an aim of making wind turbines larger and improving reliability.



▲ No. 4 Unit of Sendai Power Station of Tohoku Electric Power Co., Inc.

