TOYO TANSO
Inspiration for Innovation

TOYO TANSO
First Half Results for the Fiscal Year Ending May 31, 2009

January 2009

Toyo Tanso Co., Ltd.

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Overview of First Half Results for the Fiscal Year Ending May 31, 2009

1-1. Business Results

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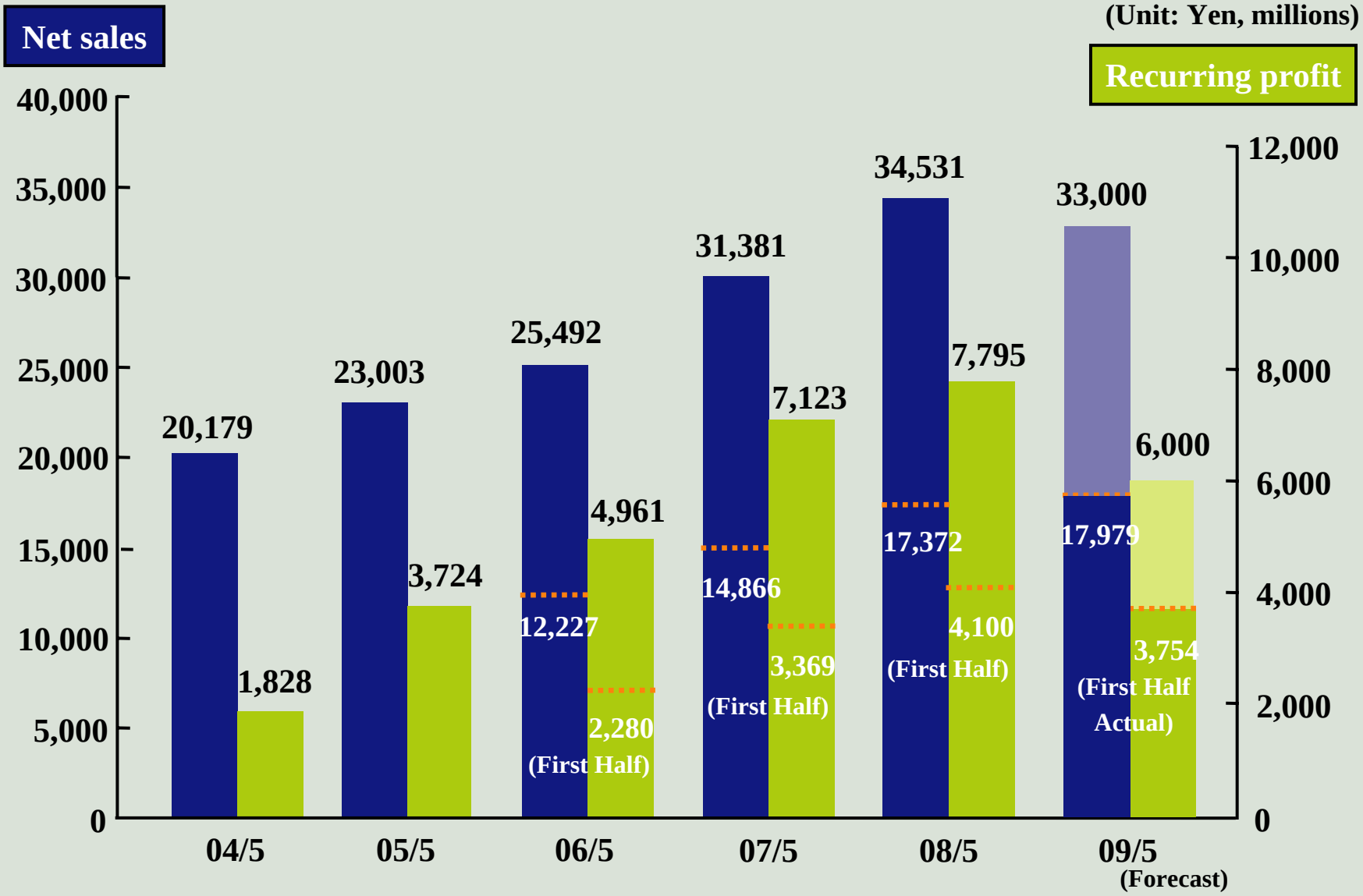

1-2. Results for the First Half of the Fiscal Year Ending May 31, 2009

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(Unit: Yen, millions)

	08/5 First Half	09/5 First Half	Change	% Change
Net sales	17,372	17,979	606	3.5%
Operating profit	4,343	4,154	(189)	(4.4%)
(Ratio of operating profit to net sales)	(25.0%)	(23.1%)		
Recurring profit	4,100	3,754	(346)	(8.5%)
(Ratio of recurring profit to net sales)	(23.6%)	(20.9%)		
Profit before income taxes	4,085	3,747	(338)	(8.3%)
Net income	2,491	2,379	(111)	(4.5%)
Net income per share	119.75 yen	114.76 yen		

Points

- Pursued high added value and a shift to high growth areas and regions centering on the environment and energy, including products for solar cells, despite a decelerating economy as evidenced in the lackluster performance of semiconductor and automobile applications.
- Achieved a figure almost in line with the plan, as a rapid expansion of demand for products for solar cells in Asia centering on China offset the sluggish performance of other applications.

- Achieved profits that were almost in line with forecasts by focusing on the shift to profitable products, responding to number of factors that pushed costs higher, including the rising cost of raw materials and fuels and supplies, and higher depreciation expenses (up 284 million yen).
- Recorded a loss on currency options of 437 million yen centering on the write-down of foreign currency-denominated receivables associated with the rapid appreciation of the yen.

1-3. Overview of Operations by Product and Segment

(1) Net Sales

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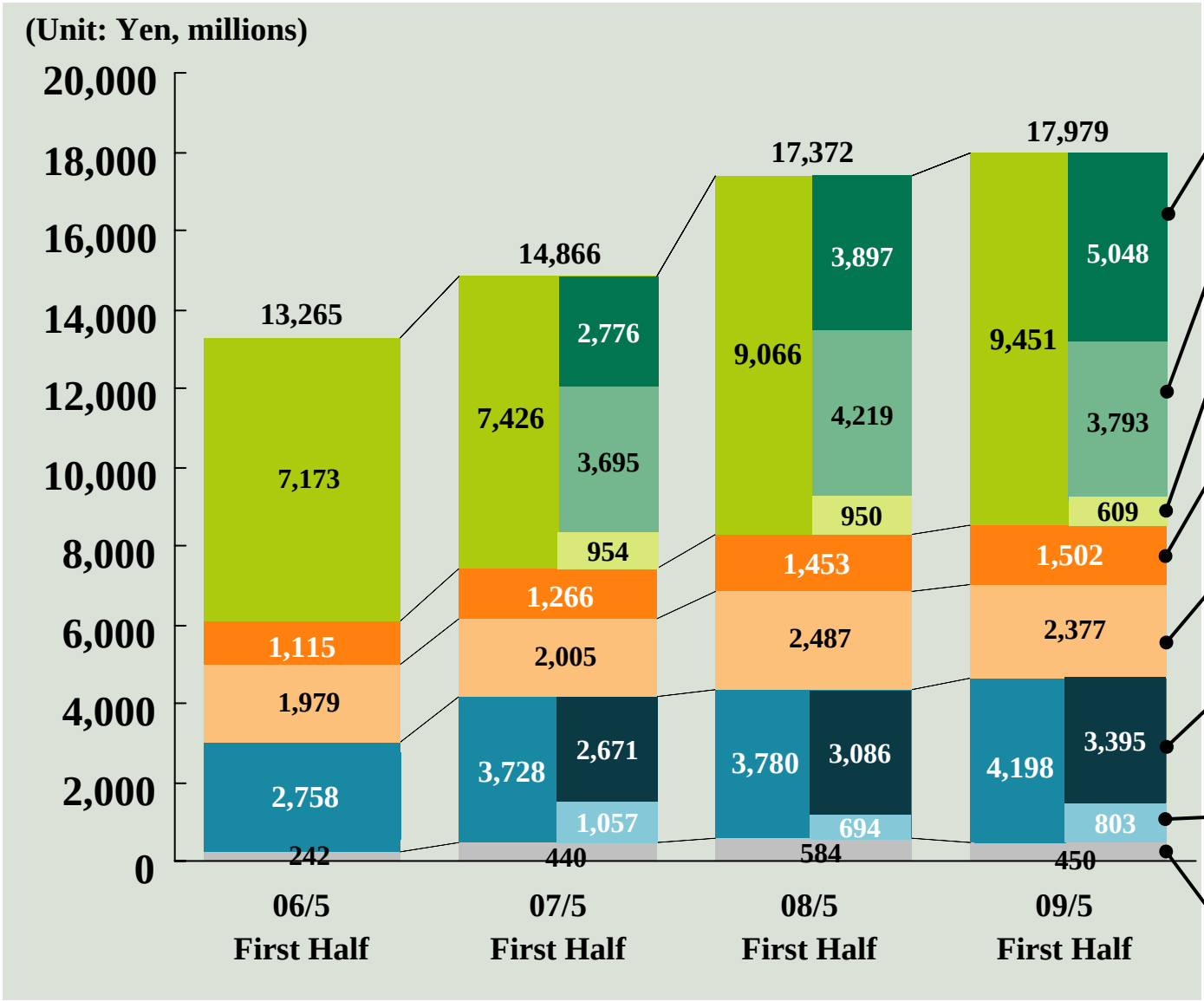

1-3. Overview of Operations by Product and Segment
(2) Summary and Market Conditions (1/2)

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Special Graphite Products

[Electronics Applications]

- **Application to the manufacture of solar cells: Increased more than 50% year on year. Growth in China, Korea and Taiwan was particularly noticeable. The growth trend continued, aided by policy developments in each country in addition to rising awareness of the environment and energy saving orientation around the world. However, with growth driver China rapidly losing momentum since December, a correction will be unavoidable in the short-term. Meanwhile, demand in Europe and Japan remained firm, and demand in the United States, which had been lagging, quickly took off. Given these positive factors, and including the support of increased production of material polysilicon, demand is expected to continue to rise in the medium and long term. Demand for special graphite products (including C/C composites) for not only silicon crystal system but also thin film and compound systems is also anticipated.**
- **Application to the manufacture of single crystal silicon: Demand was generally weakening as the correction strengthened in not only small wafers but also 300mm wafers, a reflection of the deteriorated semiconductor market conditions. It is expected to take some time before demand fully recovers.**
- **Demand for products for the manufacture of polysilicon is expected to continue to increase in conjunction with the medium and long-term growth prospect of solar cells.**


Crucible


Heater

[General Industries Applications]

- **Application to electrical discharge machining (EDM) electrode: Demand declined, mainly because of a worldwide fall in demand for EDM electrode in the automobile industry. The Company is focusing on the recovery by taking away the share in overseas markets.**
- **Against the backdrop of curbed capital investment associated with the economic slowdown, demand for products for metallurgy, including continuous casting and industrial furnace-related products turned weak. Although there was no significant decline in demand, it is difficult to anticipate a recovery in the foreseeable future.**
- **Nuclear power-related applications: A large order for high temperature gas reactors in China was determined. Delivery of C/C composite products for a nuclear fusion reactor was also confirmed. As such, the presence in nuclear power applications has been strengthened (described later).**


EDM electrode


Continuous casting dies

1-3. Overview of Operations by Product and Segment
(2) Summary and Market Conditions (2/2)

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Carbon Products for General Industries

[Carbon Products for Mechanical Applications]

- General industries applications: Despite the effect of the economic slowdown, demand for bearings and seals for petrochemical plants, air-conditioners and ecology-cable water heaters remained firm. However, uncertainty loomed over the second half. Demand for pantograph sliders remained solid and is expected to be firm in the future, as it does not move in tandem with economic conditions.


Bearings


Pantograph sliders

[Carbon Products for Electrical Applications]

- Small carbon brushes for home electronics motors: Demand in China, a production base, was weakening with the decline in economic conditions in Europe and the United States. The correction looks certain to continue in general. Sales of products for the automobile fuel pump, which is a new application in Japan, expands.


Small brushes

Compound Materials and Other Products

- SiC coated graphite: Demand for products for semiconductors (epi process) was weak because of the deterioration in market conditions. Demand for products for compound semiconductors, including suceptors for the manufacture of LED elements, was relatively firm. Products for the manufacture of polysilicon and solar cells grew to slightly surpass the level of the previous year. Growth is expected to be lackluster for the foreseeable future, but should be strong in the medium term backed by the expansion of the market related to optical devices and power devices.
- C/C composite products: Grew more than 30% year on year. Although demand for large crucibles for the manufacture of 300mm wafers turned downward, this was offset by products for solar cells, resulting in an increase in demand for C/C composite products. In products related to solar cells, sales channels are expanding with new applications, including the thin-film type and industrial furnace-related products. Sales of products for nuclear fusion reactors are also expected to increase, boosted by recent orders.
- Graphite sheets: Although products for automobiles and semiconductors will continue to experience difficulties, demand for graphite sheets remained unchanged from the previous year, thanks to growing sales of a variety of applications, including a heat sink (heat release) application.


SiC coated graphite


C/C composite products


Graphite sheets

1-4. Overview of Net Sales by Region

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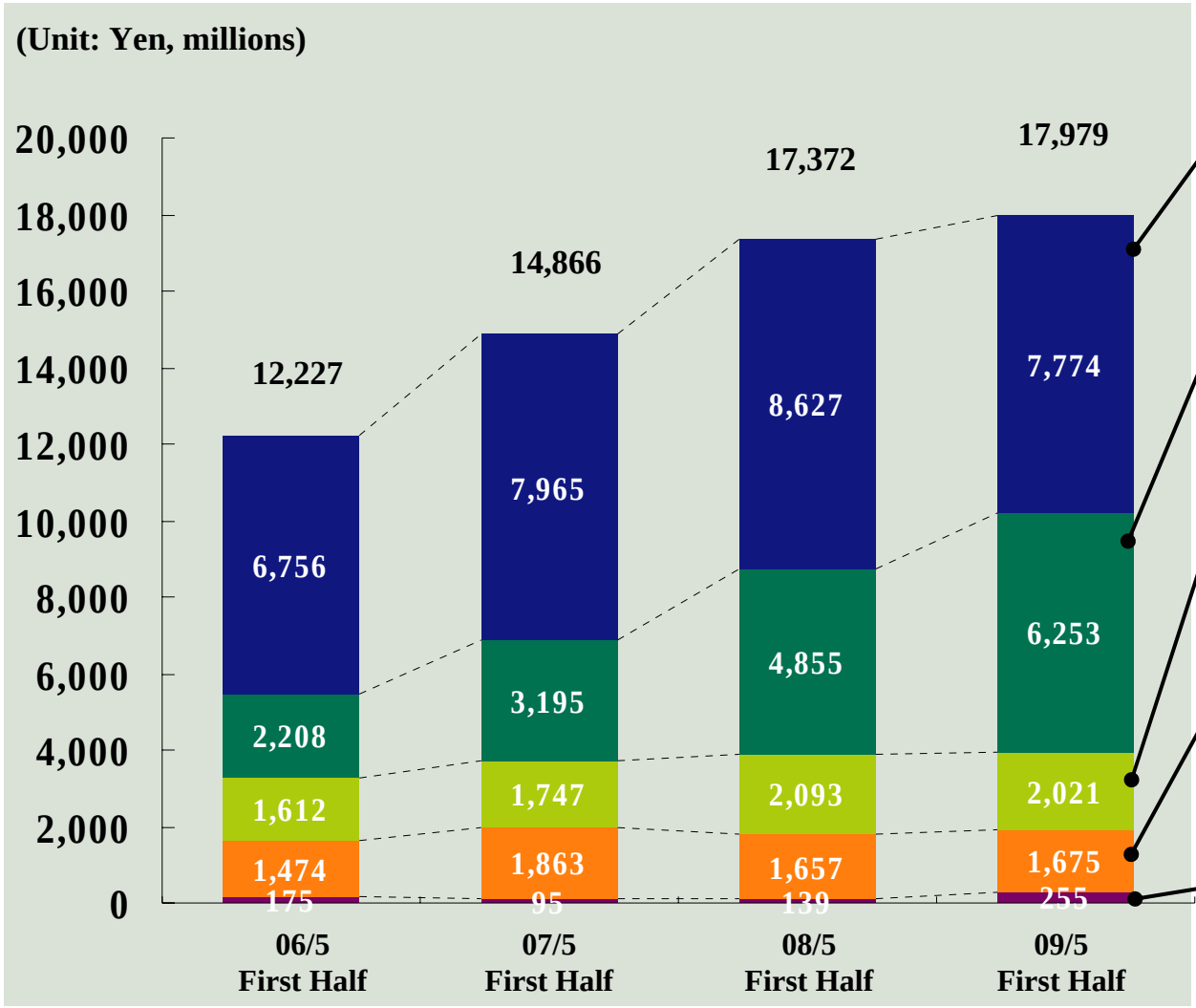
Overseas Sales Growth Ratios, Particularly in Asia, with Progress in Globalization
(44.7% in the first half of FY06/5 ⇒ 56.8% in the first half of FY09/5)



Composition ratio

Japan (43.2%)

Sales contracted, mainly because of sluggish demand for products for semiconductor and automobile applications

Asia (34.8%)

Sales continued to grow, primarily thanks to the expansion of products for solar cells in China and Korea

Europe (11.3%)

Weak sales of products for brushes was offset by sales of products for solar cells

North America (9.3%)

Sales of products for semiconductors declined, but products for solar cells took off

Other regions (1.4%)

1-5. Balance Sheet for the First Half of the Fiscal Year Ending May 31, 2009

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(Unit: Yen, millions)

	07/11	08/05	08/11
Total assets	56,431	57,706	60,097
Trade notes and accounts receivable	10,755	10,992	10,731
Inventory	6,989	7,224	8,496
Tangible fixed assets	20,736	21,269	21,547
Total liabilities and net assets	56,431	57,706	60,097
Interest-bearing debt	2,748	1,701	1,604
Paid-in capital	7,692	7,692	7,692
Net assets	43,983	46,523	48,641
Equity ratio	76.7%	79.0%	79.0%

Remarks

- Rose 1,272 million yen from the end of FY08/5, mainly because of the recovery of intermediate stock, which had been too small.

- Increased with a rise in net income for the first half of 2,379 million yen.

1-6. Statement of Cash Flows for the First Half of the Fiscal Year Ending May 31, 2009

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(Unit: Yen, millions)

	08/5 First Half	09/5 First Half
Cash and cash equivalents at the end of the period	5,732	7,770
Changes in cash and cash equivalents	(5,903)	(2,721)
Cash and cash equivalents at the beginning of the period	11,558	10,491
CF from operating activities	3,007	4,384
CF from investing activities	(8,157)	(6,687)
CF from financing activities	(743)	(369)

Remarks

- Profit before income taxes and depreciation expenses increased.
- Mainly expenditures for the acquisition of tangible fixed assets because of a large investment in the previous year.

Forecasts for the Fiscal Year Ending May 31, 2009

2-1. Forecast for the Fiscal Year Ending May 31, 2009

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(Unit: Yen, millions)

	08/5	08/5 (Forecast)	Change	% Change
Net sales	34,531	33,000	(1,531)	(4.4%)
Operating profit	8,031	6,400	(1,631)	(20.3%)
(Ratio of operating profit to net sales)	(23.3%)	(19.4%)		
Recurring profit	7,795	6,000	(1,795)	(23.0%)
(Ratio of recurring profit to net sales)	(22.6%)	(18.2%)		
Net income	5,143	3,700	(1,443)	(28.1%)
Net income per share	247.33 yen	178.44 yen		

Exchange rate assumed for FY09/5 (third and fourth quarters)

100⇒90 yen/US$, 150⇒120 yen/EUR

Remarks

- Full-year forecasts are revised by factoring in the revision of the assumed exchange rate associated with the rapid appreciation of the yen and the weaker current market conditions since December.
- It is difficult to anticipate a recovery in demand, which has been weakening particularly in semiconductor and automobile applications associated with the global recession. Demand for high-growth products for solar cells is solid in the United States, Europe and Japan, but a correction will inevitably result in China in the short run. It is therefore difficult to offset a fall in demand in other applications. Forecast net sales have been revised downward by 4.4 billion yen (11.8%), including the erosion associated with the stronger yen.
- Although the outlook is uncertain at the moment, demand for high-performance carbon products is expected to increase in the medium and long term, particularly in environmental and energy applications, including products for solar cells, nuclear power and LED. We will steadily pursue our strategies for growth, as we look to the future.
- Although raw fuel prices are calming, the cost of material coke remains high. While price increases are being sought, negotiations are difficult because of the radical change of market conditions. Forecast recurring profit has been revised downward by 1.9 billion yen (24.1%), including the effect of the stronger yen, although we will aim to achieve profit through cost cutting.

2-2. Investments in the Future (Capital Investment, Depreciation Cost, R&D Cost)

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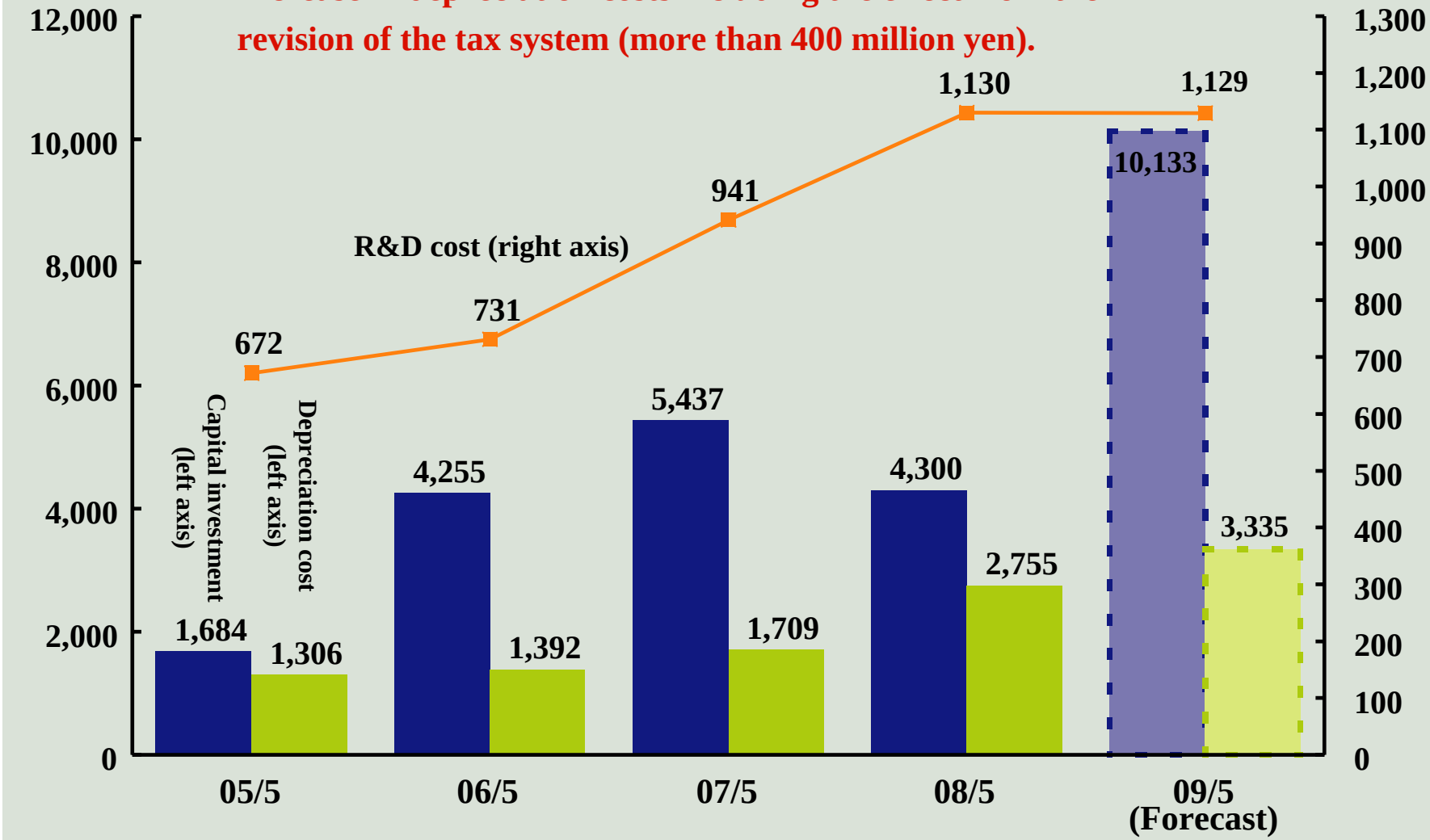
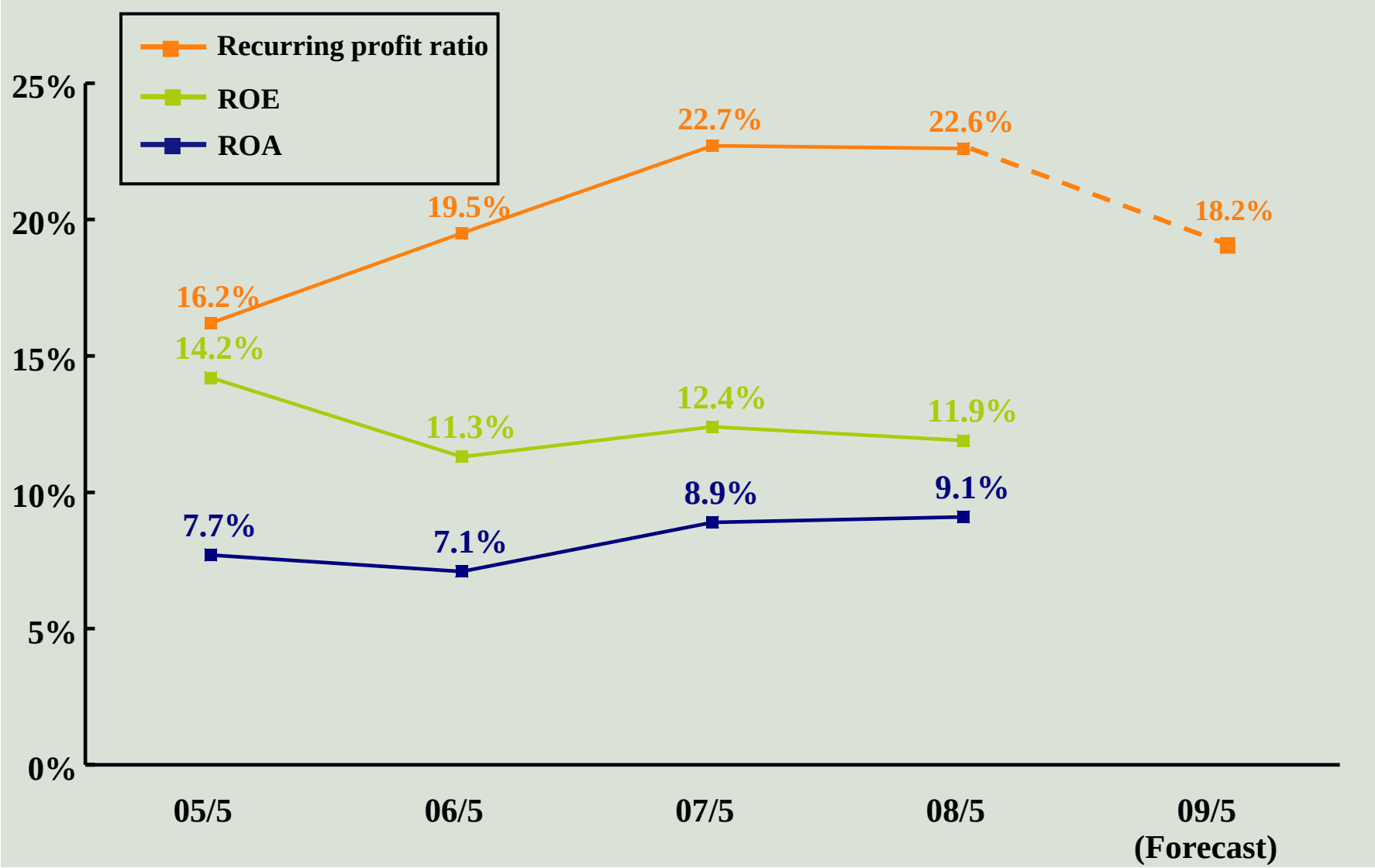
Large investments and expanded R&D for the future.

Increase in depreciation costs including the effect from the revision of the tax system (more than 400 million yen).



2-3. Major Business Indexes



2-4. Return to Shareholders　Changes in Dividend

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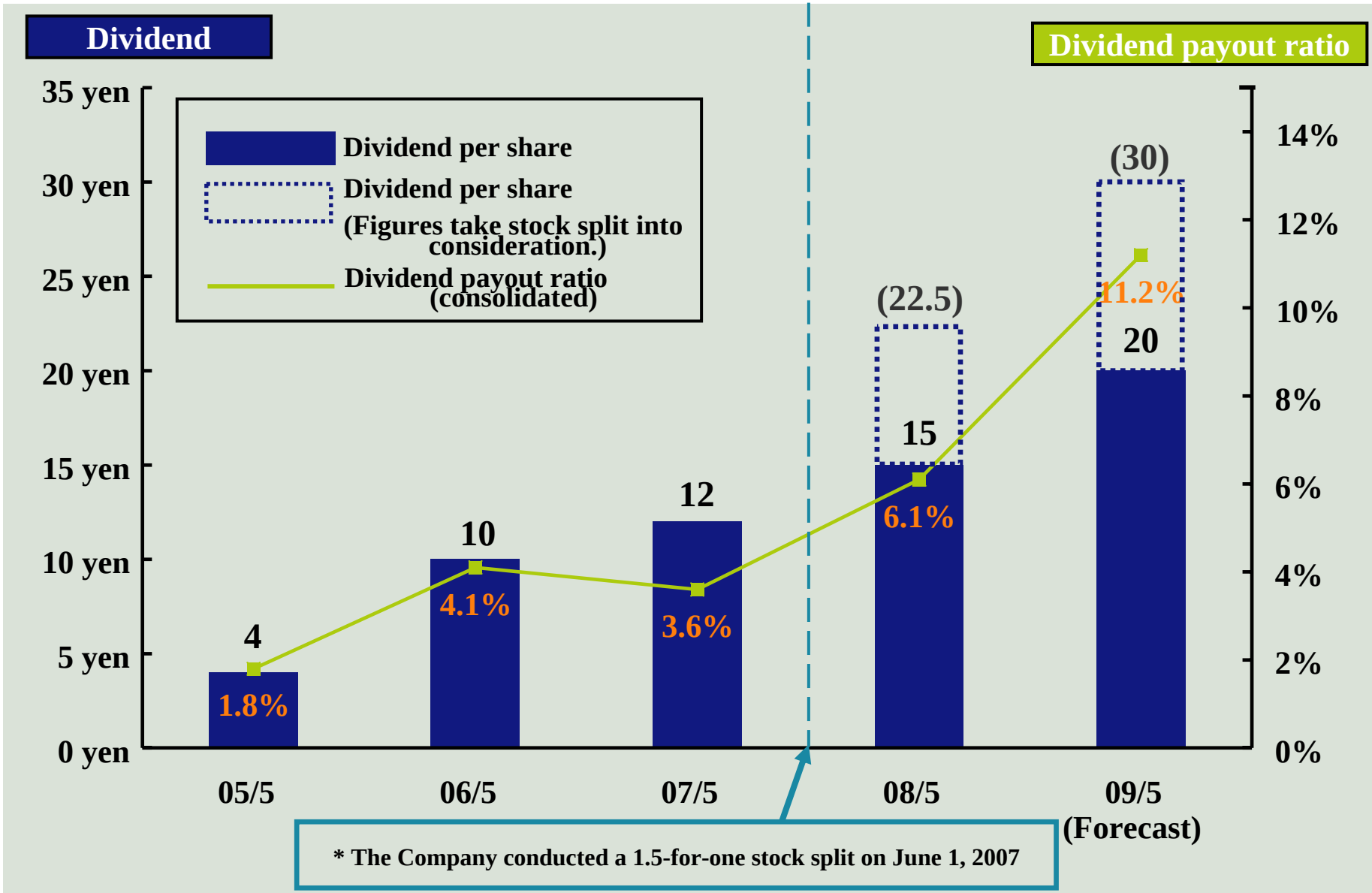

Topics

3-1. Nuclear Power Application with High Growth Potential
(1) High Temperature Gas Reactor Project in China

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Overview of the project

Project owner: Huaneng Shandong Shidaobay Nuclear Power Co., Ltd. *1
Location: Rongcheng city, Shandong province, China (230km northwest from Tsingtao city)
Size: Output 200,000KW, one unit
Schedule: Construction starts in September 2009, Operation starts in November 2013
Overall plan: Total output 4MKW, 19 units in total (by 2020)

*1 A joint venture to pursue a project established by Huaneng Group Company (the largest utility company in China), Tsinghua University and China National Nuclear Corporation

Details of the order

Product: Structural material for reactor core made using high purified isotropic graphite IG-110
Form: Processed product (raw material: TOYO TANSO, Processing and installation: Shanghai TOYO TANSO
Size: Billions of yen in total (necessary volume: over a thousand tons)
Schedule: Product shipment: mid 2010 to the end of 2011
(Recording of sales: FY2012/5)

Background to the order and strengths of TOYO TANSO

- Extremely high thermal and mechanical characteristics and radiation resistance of high purified isotropic graphite IG-110 of TOYO TANSO
- Accumulation of data and know-how through efforts (including joint research) for more than 25 years with Japan Atomic Energy Agency (JAEA) and achievements of JAEA at a test reactor (HTTR)
- Achievements of Tsinghua University in China at a test reactor (HTR-10)
- Processing history of Shanghai TOYO TANSO in China for more than 10 years and the total power of the Group
- Total power of the Sumitomo Corporation Group

Planned construction site and the completion drawing of the project

Characteristics of the high temperature gas reactor

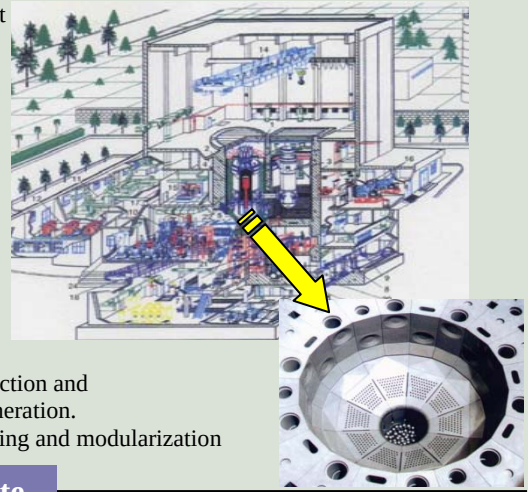
(1) High thermal efficiency
- Thermal efficiency is extremely high since it can take out heat of around 900ºC using helium gas

(2) Unique safety
- The reactor core will not melt even in the worst case as graphite is used as the structural material for the reactor core.
- Changes in the temperature in the reactor core are moderate as the thermal capacity is large.

(3) Effective use of high heat
- High heat can be used effectively for the manufacture of hydrogen and the liquefaction and gasification of coal in addition to power generation.

(4) High economic efficiency through downsizing and modularization

Test reactor “HTR-10” at Tsinghua University in China



Role of graphite

- Graphite not only reduces the speed of high-speed neutrons but also has the characteristics of a reflective material that confines radiation.
- It is the best suited and indeed only material for use as a structural material for reactor cores, because it has a high degree of heat resistance, heat conductivity, corrosion resistance and safety, among other features.

3-1. Nuclear Power Application with High Growth Potential
(2) Case Studies Involving Our Products in Nuclear Power Application

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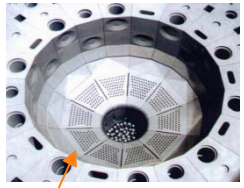
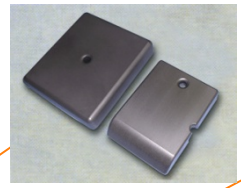
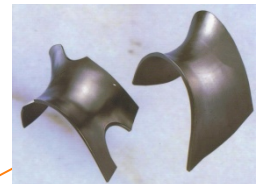

Application	Used members (materials)	Necessary property	Examples of adoption	Our advantages, recent developments and other topics, etc.
High-temperature gas reactor	Graphite for reactor core (isotropic graphite)	Radiation resistance High strength High purity Corrosion resistance	**Adopted** - Atomic Energy Agency *1, test reactor "HTTR" - Tsinghua University in China, test reactor "HTR-10" **Decided to be adopted** - Demonstrator reactor "HTR-PM" in China	Responds to a range or requirements for advanced properties The only material in the world adopted in high-temperature gas reactors currently in operation Plans for a commercial reactor are underway in South Africa, the United States, and elsewhere, in addition to China. As demonstrated by the recent conclusion of an agreement between Japan and Kazakhstan to cooperate in the construction high-temperature gas reactor, Kazakhstan has begun to build reactors.
Nuclear fusion reactor	Wall tile for fusion reactor (isotropic graphite) (C/C composite material)	High-temperature resistance Plasma durability Thermal shock durability	**Adopted** - Atomic Energy Agency, test reactor "JT-60U" - National Institute for Fusion Science, test reactor "LHD"	Adopted in the world-leading JT-60U reactor of the Atomic Energy Agency and the helical-type reactor using superconductive coils of the National Institute for Fusion Science, because of its high heat conductivity and thermal shock durability Also, adopted as a limiter tile in the TEXTOR test reactor in Europe
	Reactor wall material for diverter (C/C composite material)	High-temperature resistance Plasma durability Thermal shock durability	**Adopted** - Atomic Energy Agency, test reactor "JT-60U" **Decided to be adopted** - Test reactor "JT-60SA" of a wide range of approaches to support the ITER	Has earned high marks as a diverter material for a fusion reactor used in a state of high heat load, and its performance makes it a strong candidate material for the ITER As research activities centering on the ITER plan are accelerate in a bid to find practical applications for clean energy, operations are being strengthened, building on the strong track record and excellent characteristics of our products.
Others	Sealing for control rod of light-water reactor (carbon for machinery)	Sliding property Sealing property High strength	**Adopted** - Control rod sealing of BWR-type light-water reactor	Adopted in the sealing of control rod of the BWR-type light-water reactor for more than 20 years.
	Low energy reflective material for medical purposes Reflective material for the manufacture of semiconductors (isotropic graphite)	Radiation resistance High purity	**Adopted** - Atomic Energy Agency, JRR-4 neutron capture therapy (BNCT). Renewal of reflective material for the manufacture of semiconductor has also been decided.	Used in medical field for more than 20 years, this product is also expected to find application as a reflective material and as a moderating material for irradiating tumors with thermal neutrons and epithermal neutrons. In addition to medical applications, it is used as a reflective material and as a moderating material for neutron transmutation doping, as a product for the manufacture of high-performance and high-temperature semiconductors.

*1 Atomic Energy Agency: Japan Atomic Energy Agency

3-1. Nuclear Power Application with High Growth Potential
(3) Future Potential

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(1) Nuclear power renaissance

(Source: Data published by Japan Atomic Industrial Forum, Inc., Tepia Research Institute and others)

- Global nuclear power generation: 31 countries, 435 units, installed capacity 392GW (on an installation basis as of the beginning of 2008)
- With the rethinking of nuclear power generation gaining momentum as the world seeks to reduce carbon dioxide and combat global warming, about 30 reactors in the United States and more than 150 reactors worldwide are expected to be constructed over the next 20 years.
- According to other statistics, an ambitious plan to increase the number and capacity of reactors from 11 units and 9GW currently in operation to a total of 164 units and 167GW, including those under construction, has been put forward in China. (In its medium-term nuclear power development plan, the Chinese government plans to construct 40 units and 40GW by 2020.)

(2) Dawn of the era of high-temperature gas reactors

- While light-water reactors presently dominate, expectations are rising worldwide for the next-generation of small, high-temperature gas reactors, featuring high efficiency and economic potential.
- A number of projects are underway or have been proposed, not only China, but also in the United States (NGNP), South Africa (PBMR), Japan, Kazakhstan, and elsewhere.
- There is a very good chance that construction of commercial reactors will surge after the commencement of operation (2013) of the first (demonstration) reactor in China.
- The high-temperature gas reactor is also expected to lead the new energy cycle in the future if the environment for use as energy such as hydrogen and high heat is in place.
- We will actively make proposals for each project, calling on our strong track record in the adoption and accumulation of data and expertise in Japan and China.

(3) The ITER plan: creating the Sun on Earth

- In the Fusion Test Reactor Remodeling Plan (JT-60SA) of the Japan Atomic Energy Agency, which supports the ITER plan, delivery of our C/C composite material has been confirmed (a total of 500 million yen, over three years).
- Our high-performance carbons, including isotropic graphite and C/C composite materials, are expected to be adopted in not only the ITER plan, but will also be used in a broad array of major projects over the next 10 to 20 years, including projects (KSTAR of Korea) and prototype reactors in a number of countries that support the ITER plan and conduct complementary research.

International Thermonuclear Experimental Reactor (ITER)

- A large international project to “create the Sun on Earth” that aims to construct a fusion experimental reactor by demonstrating the scientific and technological feasibility of using fusion energy, said to be the ultimate energy, for peaceful purposes
- The ITER is being constructed in Cadarache, *France* and is expected to be completed in ten years. Seven countries and regions are involved: Japan, the European Union, Russia, the United States, China, Korea and India.
- Japan leads the world in high-temperature plasma and fusion technologies and plays a central role in promoting and supporting the ITER plan.

3-2. Establishment of a Joint Research Section with Osaka University/ Presentation at International Photovoltaic Power Generation Expo PVEXPO2009

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Establishment of a Joint Research Section with Osaka University

- **On October 1, 2008, TOYO TANSO's Joint Research Section for "advanced carbon design" was established at Osaka University in cooperation with that university and began a program of comprehensive research and development seeking practical applications for advanced carbon materials, including the compounding of ceramics and metals at the nano-level.**
- **On December 9, a symposium commemorating the establishment of the Joint Research Section was held at Osaka University to introduce the work of the section and to encourage an alliance between industry and academia, as well as interaction among researchers and other key players in different fields.**

Lecture at the symposium

Presentation at International Photovoltaic Power Generation Expo PVEXPO2009

- **We will be presenting at the Second International Photovoltaic Power Generation Expo PVEXPO2009 (February 25-27, 2009; Tokyo Big Sight). As one of Asia's largest expositions in the solar cell industry, world-leading companies from Asia, including Japan, China, Taiwan and South Korea, as well as Germany and the United States all come together and participate.**
- **We will exhibit real graphite products (for the manufacture of single crystal silicon, polycrystal silicon, and polysilicon) used in different production processes for solar cell and solar panel manufacturing to highlight our many years of achievement and experience as well as the competitive advantage of our products and technologies.**

Our booth at last year's exposition

At the end

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Note: This presentation contains “forward-looking statements” and forecasts of business results. These statements are not historical facts but instead represent the Company’s beliefs regarding future events, many of which, by their nature, are inherently uncertain and out of the Company’s control. It is possible that the Company’s actual results may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.

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