

# Annual Report 2012 Year Ended March 31, 2012

Despite a surge in the severity of competition on the global stage, NGK, in line with its commitment to being a company of excellence based on global standards, is steadily evolving to fulfill its corporate mission to constantly provide value to clients, shareholders, employees and society as a whole. Firmly grounded in distinctive ceramics technology, NGK continues to make its presence felt across the "Triple-E" business domains of Energy, Ecology and Electronics.

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**HONEYCERAM®** 

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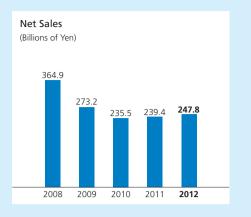
#### Forward-Looking Statements

This annual report contains forward-looking statements about the future plans, strategies, beliefs and performance of NGK and subsidiaries. These forward-looking statements are not historical facts. They are expectations, estimates, forecasts and projections based on information currently available to the Company, and are subject to a number of risks, uncertainties and assumptions, which, without limitation, include economic trends, competition in markets where the Company is active, personal consumption, market demand, the tax system and other legislation. As such, actual results may differ materially from those projected.

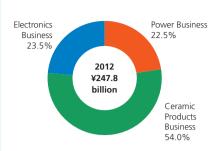
#### CERAMIC MEMBRANES

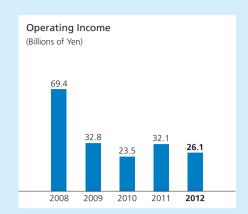
# **Financial Highlights**

NGK Insulators, Ltd. and Consolidated Subsidiaries Years Ended March 31

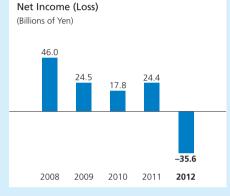




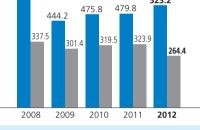










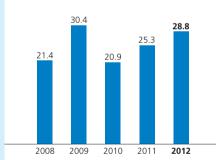


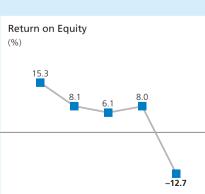
Total Assets Total Equity/Total Shareholders' Equity



Total Assets,

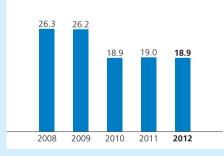
(Billions of Yen)



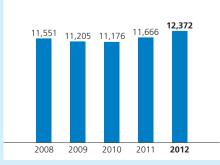


2008 2009 2010 2011 **2012** 

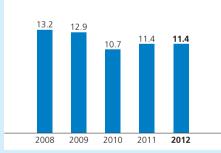




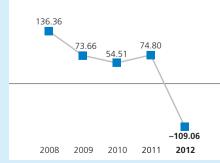
Number of Employees



#### Research and Development Expenses (Billions of Yen)



Net Income (Loss) per Share (Yen)





### **Business Performance in Fiscal 2011**

In September 2011, a fire occurred involving NGK-manufactured sodium sulfur (NAS<sup>®</sup>) batteries for storing electricity. We would like to extend our deepest apologies for the considerable concern and inconvenience that this accident caused our shareholders, as well as for the impact that it had on the Company's performance.

Following the accident, NGK formed an Accident Investigation Committee to investigate the causes and consider measures for preventing a recurrence. In coordination with Japan's Fire and Disaster Management Agency, it was determined that additional safety measures would be implemented, including monitoring. The measures were based in part on the findings of an independent commission, which verified the results of our own investigation. The specifics of the measures were announced on June 7.

With additional safety measures having since been implemented, customers can use NAS batteries more confidently because the batteries now have more safety features than previous models.

NAS battery production had been suspended since the fire but recommenced in June. For the immediate future, we are putting top priority on making modifications to existing NAS batteries that customers have continued to use. New production is slated to begin in the second half of the current fiscal year. Demand is increasing around the world for large-capacity storage batteries due to more extensive use of renewable energies, the development of smart grids (next-generation power distribution networks), and similar trends. NGK intends to rigorously and properly implement additional safety measures and endeavor to rebuild trust in NAS batteries, which have earned a strong reputation for highly efficient, large-capacity power storage. In the process, we will make a firm step toward our future growth.

We ask for your continued support of the NGK Group and its operations.

In fiscal 2011, ended March 31, 2012, the Japanese economy presented extremely challenging conditions in the first half of the year, as illustrated by the Great East Japan Earthquake and ensuing nuclear accident, along with the yen's historically high appreciation. In the second half, however, signs of recovery emerged in general production and consumer spending.

In this climate, the NGK Group's Ceramic Products Business saw increased sales of cordierite diesel particulate filters (DPFs), ceramic substrates for catalytic conversion (large-size HONEYCERAM<sup>®</sup>), and other products on the back of solid demand in Europe, North America and emerging markets, primarily for automotive products.

In the Power Business, sales of NAS batteries lagged due to the fire incident; sales of insulators also declined due to slower demand in Japan and China.

In the Electronics Business, demand for micro-ceramics actuators used in inkjet printers waned as customers' production volume fell due to the earthquake and other factors, while ceramics for semiconductor manufacturing equipment and beryllium copper products also struggled. As a result, consolidated net sales increased 3.5% year on year to ¥247,819 million owing largely to higher revenues from automotive products.

In terms of earnings, income from the Ceramic Products Business rose largely on the strength of automotive products. However, there was a larger operating loss in the Power Business, reflecting suspended production of NAS batteries and other factors, and lower income from the Electronics Business due to diminished sales, the strong yen and other factors. As a result, consolidated operating income declined by 18.8% to ¥26,054 million and ordinary income fell 12.2% to ¥28,670 million. An extraordinary loss of ¥61,097 million was recorded for NAS battery safety measures and past income taxes of ¥7,754 million were stated based on transfer price taxation, which resulted in a net loss of ¥35,609 million.

### Striving for Sustainable Growth

The outlook for economic conditions impacting the Group remains uncertain due to a number of concerns, including slowing in the economies of emerging markets and the U.S., fiscal and financial instability in Europe, geopolitical risk in the Middle East and rising oil prices, the strong yen, and looming power supply shortages in Japan this summer.

In response, the NGK Group has to address the following issues. We must work to achieve growth by steadily taking advantage of opportunities for business expansion in the Ceramic Products Business, with automotive products as the key. We need to improve profitability in the Power Business, where earnings from existing businesses in particular have struggled, and in the Electronics Business, which faces extreme fluctuations in business conditions. And we must quickly generate new products and launch new businesses for our next phase of growth by spurring further innovation in ceramics technologies.

The NGK Group will tackle these challenges while guided by five basic policies—seeking innovation in our technologies, emphasizing speed, paying attention to on-site operations, encouraging human resource development, and promoting CSR in which all employees can take part. The Group will collectively work to achieve sustained growth through these activities and thereby further raise corporate value while continuing to put managerial emphasis on capital efficiency and shareholder value.

We ask for your continued guidance and support of the NGK Group and its operations going forward.



August 2012

Shun Matsuset

Shun Matsushita Chairman

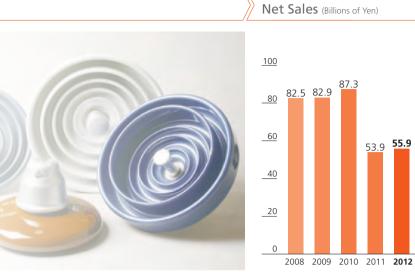
Tankto

Taro Kato President

### Power Business Group

This business segment covers the production and sale of insulators and devices for power companies and manufacturers of heavy electrical equipment in Japan and overseas.

The business also produces NAS batteries that are used for large-scale power storage.



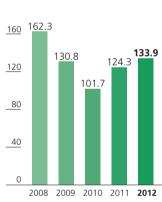
# Ceramic Products Business Group

This business segment encompasses three operations: automotive ceramics, where NGK is involved in the production of components essential to automotive exhaust gas purification; industrial process apparatus, in which the Company manufactures products which are highly resistant to heat and chemical corrosion; and industrial heating systems and refractories, built on NGK's sophisticated firing technologies.

# **Electronics Business Group**

This business segment is composed of three operations: specialty metals, which deals in beryllium copper; high-performance ceramics for providing ceramic products for semiconductor manufacturing equipment; and electronic components, a business engaged in developing components by applying functional ceramics technology.



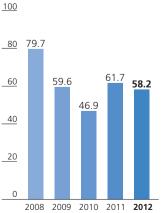


Net Sales (Billions of Yen)

200



Net Sales (Billions of Yen)



#### Fiscal 2011 Business Overview

In fiscal 2011, consolidated segment sales rose 3.8% to ¥55,876 million. Sales of insulators slowed compared to the previous year on the impact of the strong yen and stagnating demand in the domestic and Chinese markets. Sales of NAS battery systems also declined due to the suspension of production after the fire incident and other factors.

Insulators and NAS battery systems both posted operating losses, and the combined operating loss for the segment was ¥12,194 million (compared to an operating loss of ¥8,096 million in the previous fiscal year).

### **R&D** Activities

In this segment, which is focused on the power distribution business, the main thrust of R&D activities at our consolidated subsidiary ENERGY SUPPORT CORPORATION is enhancing the functionality and performance chiefly of switches and cut-out switches. ENERGY SUPPORT is also active in promoting joint R&D with electric power companies.

Solid oxide fuel cells were a major R&D theme for this segment during fiscal 2011.

R&D expenses in this segment totaled ¥1,948 million.

#### Fiscal 2011 Business Overview

Consolidated segment sales were ¥133,939 million, up 7.8% from the previous fiscal year.

Automotive ceramics were impacted by the strong yen and the earthquake, but sales increased on higher demand stemming from steady sales of passenger vehicles in developing countries and the U.S., and increased truck sales in Europe, North America and emerging markets. Sales were led by cordierite diesel particulate filters (DPFs) and ceramic substrates for catalytic conversion (large-size HONEYCERAM). Sales of industrial process apparatuses increased on demand growth for such products as firing furnaces for lithium batteries.

Consolidated operating income climbed 7.2% to ¥33,312 million, as growth in sales of automotive products and enhanced productivity absorbed the impact of the strong yen, expenses incurred in the launch of a new base, and other factors.

#### Fiscal 2011 Business Overview

Consolidated segment sales were ¥58,224 million, down 5.7% from the previous fiscal year.

Sales of beryllium copper products declined due to the strong yen and less favorable market conditions, and demand was soft for micro-ceramics actuators used in inkjet printers due to the impact of the earthquake, leading to lower sales. Sales of ceramic products for semiconductor manufacturing equipment were boosted by corporate acquisitions, but overall sales decreased due to deteriorating market conditions for semiconductor manufacturing equipment, the strong yen, and other factors. Similarly, the group sales of consolidated subsidiary SOSHIN ELECTRIC CO., LTD. declined on weak demand associated with information and communications infrastructure.

Consequently, consolidated operating income fell 45.8% to ¥4,893 million, largely as a result of flagging sales and the strong yen.

#### **R&D** Activities

R&D in this segment is focused on several main themes: improving DPFs production techniques and performance; enhancing production techniques for ceramic honeycomb substrates used in catalytic converters for diesel and other automobiles; the development of heating and drying systems for glass substrate and film, and the refinement of waste treatment systems for nuclear power plants.

R&D expenses in this segment totaled ¥3,685 million.

#### **R&D** Activities

Research in this segment is focused on: boosting the density and performance of the micro-ceramics actuators used in inkjet printers, based on core piezoelectric ceramics technology; ceramic components and modules for raising the performance of a range of devices and semiconductor production equipment; and beryllium copper strip products for electronic parts such as connectors and relays for automobiles, industrial equipment and digital appliances.

We are also working on high-intensity discharge lamp arc tubes made from translucent alumina ceramics, and continue efforts to develop low-cost mass production technology in this area. SOSHIN ELECTRIC also conducts R&D centered on areas such as large-capacity, industrial-use capacitors and multi-layered dielectric filters, primarily for the fields of power electronics and information and communications. R&D expenses in this segment totaled ¥3,067 million.

### **Corporate Social Responsibility**



Corporate Social Responsibility Report http://www.ngk.co.jp/ english/csr/

### **CSR from NGK's Perspective**

To contribute to society in a manner that embodies our corporate philosophy, the NGK Group is committed to offering products and services that help create a better social environment and bring new value to society.

By putting these activities into practice, we are working together with our customers, employees and business partners to fulfill our social responsibility as a company in every respect, an act essential to meeting the public's expectations and earning its trust.

Refer to the Corporate Social Responsibility Report for more information concerning NGK's CSR activities.

### **Corporate Governance**

### **Basic Approach to Corporate Governance and Status Initiatives**

To ensure appropriate operations and transparent management, NGK has set its sights on establishing and maintaining an organization capable of swiftly responding to changes in the business environment, and a fair and open management system that emphasizes the interests of shareholders. These components comprise NGK's basic approach to corporate governance.

To put this approach into practice, NGK has chosen a governance structure anchored by a Board of Corporate Auditors. In addition to the General Meeting of Shareholders, the Board of Directors and the Board of Corporate Auditors, corporate governance at NGK includes the Executive Committee and several other committees established to assist the president in management decision making. By deliberating and reviewing important matters, these bodies help to enhance governance efficacy.

Considering the importance of swift and optimal decision making and execution for responding promptly to changes in the operating environment, NGK introduced a corporate officer system, thus separating the management's decision making and supervision functions from business execution functions, and clearly defining the responsibilities of both.

#### **Internal Control Systems**

The Board of Directors and the executive bodies overseen by the president are responsible for establishing and operating NGK's internal control system. The Auditing Department, a specialist internal audit body, is responsible for monitoring the status of business execution at each operating division. Moreover, NGK has established the Internal Controls Committee to manage its reporting system for internal controls pursuant to Japan's Financial Instruments and Exchange Law. The NGK Group Guidelines for Corporate Behavior were formulated as a policy that embodies the Group's corporate and management philosophies and as a guide for the actions we take. These guidelines specify the Group's fundamental stance with respect to business activities and corporate behavior to ensure that it is a company that remains beneficial to society even in the pursuit of its economic goals. The CSR Committee, meanwhile, is responsible for a range of activities that include formulating the NGK Group Guidelines for Corporate Behavior, ensuring that compliance with laws, regulations and corporate ethics is fully entrenched throughout the Group, and developing responses to incidents and accidents that it believes could significantly impact the Company. The committee's actions are designed to maintain and improve the level of the Group's internal control system.

### **Financial Review**

#### **Summary of Income Statements**

Net sales for the NGK Group increased 3.5% year on year to ¥247,819 million, with growth strongly driven by increased sales of automotive products. In the Ceramic Products Business, demand was especially firm for automotive products in Europe, the United States and in emerging markets, with sales particularly higher for cordierite diesel particulate filters (DPFs) and large-size HONEYCERAM substrates. In the Power Business, sales suffered due to an accidental fire caused by a NAS (sodium sulfur) battery used for power storage in September 2011, with sales of insulators also lower on weak demand in the Japanese and Chinese markets. Similarly in the Electronics Business, the lingering effects of the Great East Japan Earthquake and other factors led to subdued demand for micro-ceramics actuators used in inkjet printers, with lackluster sales also reported for ceramics for semiconductor manufacturing equipment and beryllium copper products.

With respect to earnings, operating income decreased 18.8% to ¥26,054 million. Earnings in the Ceramic Products Business rose primarily on the strength of automotive products, which offset a larger operating loss in the Power Business, arising mainly from suspended production of NAS batteries, coupled with a drop in earnings in the Electronics Business caused by lower sales and the negative impact of the strong yen. Nevertheless, the NGK Group posted a net loss for the fiscal year under review of ¥35,609 million. In addition to booking an extraordinary loss of ¥61,097 million in expenses for NAS battery safety measures, the Group took a charge of ¥7,754 million for past income taxes stated based on transfer price taxation.

#### **Financial Position**

As of March 31, 2012, total assets were ¥523,214 million, an increase of 9.0% from the previous fiscal year-end.

Current assets increased by 17.1% year on year to ¥283,003 million, mainly due to an increase in marketable securities and deferred tax assets. Fixed assets rose 0.9% year on year to ¥240,210 million, attributable mainly to an increase in investment securities.

Current liabilities increased 54.9% year on year to ¥112,479 million. This outcome mainly reflected an allowance for NAS battery safety measures to cover anticipated expenses necessary to promote this business. Long-term liabilities increased 75.7% to ¥146,291 million, primarily due to an increase in long-term debt.

Total equity stood at ¥264,444 million, 18.4% lower than the previous fiscal year-end. Consequently, the equity ratio was 48.5%, while net assets per share fell ¥162.53 year on year to ¥777.93.

#### **Cash Flows**

There was a net increase of ¥22,117 million in total cash and cash equivalents from the previous fiscal year-end to ¥85,149 million. This reflected ¥13,851 million in net cash provided by operating activities, ¥45,438 million in net cash used in investing activities, and ¥56,608 million in net cash provided by financing activities.

#### **Cash Flow from Operating Activities**

Net cash from operating activities was ¥13,851 million, ¥22,799 million less than the previous fiscal year. In addition to a loss before income taxes and minority interests of ¥32,468 million, this was primarily attributable to the payment of past income taxes stated based on transfer pricing taxation, coupled with an allowance for NAS battery safety measures and depreciation and amortization. Compared to the previous fiscal year, net cash declined on the decrease in income before income taxes and minority interests, an increase in income taxes paid and other payments.

#### **Cash Flow from Investing Activities**

Net cash used in investing activities was ¥45,438 million, ¥27,552 million more than a year earlier. Cash was primarily used for capital expenditures in the Ishikawa Plant, which manufacturers honeycomb ceramics for automobile catalytic converters, and in overseas subsidiaries involved in diesel-related products in Mexico, China and other countries. Time deposits, meanwhile, were higher than in the previous fiscal year.

#### **Cash Flow from Financing Activities**

Net cash provided by financing activities was ¥56,608 million, an increase of ¥61,754 million from net cash used in the previous fiscal year. Cash used was related mainly to outlays for payment of cash dividends, which was offset by proceeds from long-term debt. In contrast to the previous fiscal year, cash was provided by proceeds from long-term debt.

In previous years, certain overseas subsidiaries adopting U.S. GAAP have applied the "first-in first-out" method or the "last-in first-out" method when valuating inventory assets. These methods, however, were changed to the weighted-average method from the fiscal year under review. Figures for the previous fiscal year have thus been retroactively adjusted for comparison.

#### **Capital Expenditures**

Capital expenditures for the NGK Group totaled ¥28,839 million.

Capital expenditures in the Power Business segment totaled ¥2,785 million, mainly related to upgrades to testing equipment for R&D facilities, mass production facilities for power distribution equipment, and the construction of new warehouses.

In the Ceramic Products Business segment, capital expenditures totaled ¥21,026 million, and were concentrated on production facilities related to cordierite diesel particulate filters and large-size HONEYCERAM substrates.

Capital expenditures in the Electronics Business segment totaled ¥2,792 million, mainly for production facilities related to electronic components.

At the Head Office, capital expenditures were ¥2,236 million, principally for upgrading facilities.

### **Business Risks**

#### **Production Bases**

The NGK Group's main production bases are located in Aichi Prefecture and Ishikawa Prefecture in Japan, and overseas in North America, Europe, Asia and other regions. The Group operates a global production system for its core products, such as ceramic honeycomb substrates for automotive catalytic converters and electrical insulators, from the perspective of manufacturing close to demand centers and achieving optimal production base is in Japan or overseas, if facilities at a major production base are seriously damaged by a natural disaster such as an earth-quake or fire, production may stop for a considerable period of time, thereby adversely affecting the NGK Group's business performance and financial condition. Overseas operations, in particular, carry such potential risks as compliance with the host country's laws, regulations or taxes, adverse changes in the economic environment such as fluctuations in exchange rates, difficulty in securing, educating and training personnel, inadequate infrastructure and societal problems such as terrorism and war. The unforeseen occurrence of any of these events could adversely affect the NGK Group's business performance and financial condition.

**Exchange Rates, Interest Rates and Material Prices** 

The NGK Group produces and sells products worldwide. Consequently, the Group hedges the risk of short-term changes in the exchange rates of major currencies, particularly the U.S. dollar, euro and yen, with forward foreign exchange contracts and other financial instruments. However, appreciation of the yen could cause a decline in net sales and earnings.

The NGK Group plans to continue making the necessary capital investments to expand its businesses and improve productivity. The Group's funding needs include these capital expenditures and the redemption of corporate bonds. In the event of interest rate rises, future fund procurement costs may increase, which could adversely impact the NGK Group's business performance and financial condition.

Recent rises in raw materials prices have led to higher manufacturing costs at NGK Group businesses. To minimize this factor, the Group raises sales prices, cuts costs, improves productivity and reduces business expenses. The NGK Group endeavors to absorb rises in purchasing prices, but excessive rises in the prices for raw materials may adversely impact on the Group's business performance and financial condition.

#### **New Products**

The NGK Group works to create new products to secure its growth prospects. Looking ahead, the Group will make focused investments in new products that should become pillars of growth. NGK is therefore making significant capital expenditures in stages, for example, in production plants for diesel particulate filters, since demand for these products is expected to rise due to stricter emissions standards for diesel vehicles. The NGK Group is anticipating significant growth in these new products going forward. However, in the event that these capital expenditures are not made on schedule, this may adversely impact on the NGK Group's medium-term growth prospects.

#### **Changes in the Business Environment**

Demand for the products that the NGK Group manufactures and sells is strongly influenced by changes in the economic climate in and outside of Japan. Such changes may adversely impact the Group's business performance and financial condition.

#### **Product Quality**

Guided by its Corporate Quality Policy, the NGK Group conducts quality-related activities in a committed drive to ensure consistent high quality. These efforts notwithstanding, the Group cannot completely eliminate the possibility of quality-related issues from every product that it sells or manufactures. The occurrence of such problems could therefore have a substantial and adverse impact on the Group's business performance.

# **Consolidated Balance Sheet**

NGK Insulators, Ltd. and Consolidated Subsidiaries March 31, 2012

	Millions	s of Yen	Thousands of U.S. Dollars (Note 1)
Assets	2012	2011	2012
Current Assets:			
Cash and cash equivalents (Note 15)	¥ 85,149	¥ 63,004	\$ 1,038,402
Time deposits (Note 15)	12,776	10,290	155,805
Marketable securities (Notes 5 and 15)	18,202	17,922	221,976
Notes and accounts receivable:			
Trade notes and accounts (Note 15)	54,027	48,907	658,866
Non-consolidated subsidiaries and associated companies	1,424	1,305	17,366
Other	7,944	6,821	96,878
Allowance for doubtful accounts	(112)	(128)	(1,366)
	63,283	56,905	771,744
Inventories (Note 6)	79,258	81,925	966,561
Deferred tax assets (Note 12).	21,438	9,524	261,439
Prepaid expenses and other current assets	2,897	2,112	35,329
Total current assets.	283,003	241,682	3,451,256

Property,	Plant	and	Equipment:
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Buildings and structures	116,286	111,761	1,418,122
Machinery and equipment	246,566	241,894	3,006,903
	362,852	353,655	4,425,025
Accumulated depreciation	(263,091)	(255,044)	(3,208,427)
	99,761	98,611	1,216,598
Land	21,107	21,293	257,402
Construction in progress	14,577	17,326	177,768
Net property, plant and equipment (Note 7)	135,445	137,230	1,651,768

Investments and Other Assets:			
Investment securities (Notes 5 and 15)	58,231	54,067	710,134
Investments in and loans to non-consolidated subsidiaries and associated companies	19,631	18,227	239,402
Intangible assets	3,513	2,657	42,841
Prepaid pension cost (Note 9)	16,946	18,086	206,659
Deferred tax assets (Note 12)	3,991	5,316	48,671
Other assets	2,454	2,528	29,927
Total investments and other assets	104,766	100,881	1,277,634

Total	¥ 523,214	¥ 479,793	\$ 6,380,658

	Millions	Thousands of U.S. Dollars (Note 1)	
Liabilities and Equity	2012	2011	2012
Liabilities:			
Current Liabilities:			
Short-term borrowings (Notes 8 and 15)	¥ 2,924	¥ 3,344	\$ 35,659
Current portion of long-term debt (Notes 8 and 15)	8,000	10,108	97,561
Trade notes and accounts (Note 15)	24,005	22,957	292,744
Non-consolidated subsidiaries and associated companies	2,929	2,842	35,720
Other	9,179	9,912	111,938
	36,113	35,711	440,402
Accrued expenses	10,008	10,196	122,049
Provision for NAS Battery safety measures	42,334	—	516,268
Income taxes payable (Note 15)	3,835	3,247	46,768
Other current liabilities	9,265	9,996	112,988
Total current liabilities.	112,479	72,602	1,371,695
Long-Term Liabilities:			
Long-term debt (Notes 8 and 15)	118,701	54,000	1,447,573
Liability for retirement benefits (Note 9).	16,544	16,221	201,756
Provision for product warranties	659	2,029	8,037
Deferred tax liabilities (Note 12).	6,852	7,136	83,561
Other long-term liabilities	3,535	3,860	43,110
Total long-term liabilities	146,291	83,246	1,784,037
Contingent Liabilities (Note 17)			
Equity (Note 10):			
Common stock:			
Authorized—735,030 thousand shares			
Issued—337,560 thousand shares at March 31, 2012 and 2011	69,849	69,849	851,817
Capital surplus	85,138	85,137	1,038,268
Stock acquisition rights (Note 11)	741	698	9,037
Retained earnings	158,684	200,829	1,935,171
Treasury stock—at cost: 11,043,028 shares and 11,043,485 shares			
at March 31, 2012 and 2011, respectively	(14,413)	(14,416)	(175,768)
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	4,479	4,826	54,622
Deferred gain on derivatives under hedge accounting	35	32	426
Foreign currency translation adjustments	(47,727)	(37,525)	(582,037)
Postretirement benefit liability adjustment of foreign subsidiaries	(2,036)	(1,655)	(24,829)
Total.	254,750	307,775	3,106,707
Minority interests	9,694	16,170	118,219
Total equity	264,444	323,945	3,224,926
Total	¥523,214	¥479,793	\$6,380,658

See notes to consolidated financial statements.

# **Consolidated Statement of Operations**

NGK Insulators, Ltd. and Consolidated Subsidiaries Year Ended March 31, 2012

	Millions	Thousands of U.S. Dollars (Note 1)	
-	2012	2011	2012
	¥247,819	¥239,363	\$3,022,183
Cost of Sales (Note 13)	171,778	160,804	2,094,854
	76,041	78,559	927,329
Selling, General and Administrative Expenses (Note 13).	49,987	46,456	609,597
– Operating income	26,054	32,103	317,732
Other Income (Expenses):			
Interest and dividend income	1,961	1,846	23,915
Interest expense	(1,248)	(1,118)	(15,220)
Gain (loss) on sales of and disposals of property, plant and equipment—net	213	(289)	2,598
Equity in earnings of unconsolidated subsidiaries and associated companies	1,877	2,048	22,890
Foreign exchange gain (loss)	526	(2,165)	6,415
Subsidy income.	1,476	_	18,000
Gain on negative goodwill.	1,926	_	23,488
Loss on evaluation of derivative	(410)	(123)	(5,000)
Depreciation expense on idle facilities	(403)	(353)	(4,915)
Loss from write-down of investment securities	(657)	_	(8,012)
Impairment loss on fixed assets associated with reorganization of business structure			
(Note 7)	(2.740)	_	(33,415)
Provision for loss on liquidation of subsidiaries and affiliates	_	(126)	
Provision for product warranties	(260)	(1,682)	(3,171)
Loss from a natural disaster		(147)	
Loss on NAS Battery safety measures (Note 7)	(61,097)	(· · · · /	(745,085)
Other—net	314	434	3,829
Other expenses—net	(58,522)	(1,675)	(713,683)
(Loss) Income before Income Taxes and Minority Interests	(32,468)	30,428	(395,951)
	(32,400)	50,420	(555,551)
Income Taxes (Note 12) Current			
	4 240	7 0 4 7	F2 (F0
Current period.	4,318	7,847	52,659
Prior periods	7,754	(2 5 0 6)	94,561
Deferred	(9,721)	(2,586)	(118,549)
Total income taxes	2,351	5,261	28,671
Net (Loss) Income before Minority Interests	(34,819)	25,167	(424,622)
Minority Interests in Net Income	790	739	9,634
Net (Loss) Income	¥ (35,609)	¥ 24,428	\$ (434,256)

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	Ye	U.S. Dollars	
Per Share of Common Stock (Notes 2.w. and 19)			
Basic net (loss) income	¥(109.06)	¥74.80	\$(1.330)
Diluted net income	—	74.69	—
Cash dividends applicable to the year	20.00	20.00	0.244

See notes to consolidated financial statements.

# **Consolidated Statement of Comprehensive Income**

NGK Insulators, Ltd. and Consolidated Subsidiaries Year Ended March 31, 2012

	Millions	of Yen	Thousands of U.S. Dollars (Note 1)
	2012	2011	2012
Net (Loss) Income before Minority Interests	¥(34,819)	¥ 25,167	\$(424,622)
Other Comprehensive Income (Note 18)			
Unrealized loss on available-for-sale securities	(402)	(1,467)	(4,903)
Deferred gain (loss) on derivatives under hedge accounting	6	(38)	73
Foreign currency translation adjustments	(10,193)	(13,139)	(124,305)
Share of other comprehensive income in associates	(2)	2	(24)
Postretirement benefit liability adjustments of foreign subsidiaries	(381)	41	(4,646)
Total other comprehensive income	(10,972)	(14,601)	(133,805)
Comprehensive Income (Note 18)	¥(45,791)	¥ 10,566	\$(558,427)
Total Comprehensive Income Attributable to (Note 18)			
Owners of the parent	¥(46,536)	¥ 10,235	\$(567,512)
Minority interests	745	331	9,085
See notes to consolidated financial statements.			

# **Consolidated Statement of Changes in Equity**

NGK Insulators, Ltd. and Consolidated Subsidiaries Year Ended March 31, 2012

	Thousands						Millio	ns of Yen					
							Accu	mulated Other C	omprehensive Inc	ome			
	Outstanding Number of Common Stock	Common Stock	Capital Surplus	Stock Acquisition Rights	Retained Earnings	Treasury Stock	Unrealized Gain on Available- for-sale Securities	Deferred Gain on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Post- retirement Benefit Liability Adjustment of Foreign Subsidiaries	Total	Minority Interests	Total Equity
Balance at April 1, 2010	326,588	¥69,849	¥85,140	¥643	¥180,077	¥(14,315)	¥ 6,226	¥ 81	¥(24,732)	_	¥302,969	¥16,503	¥319,472
Cumulative effect of the change in accounting policy (Note 3)	_	_	_	_	506	_	_	_	(8)	_	498	_	498
Balance after retrospective adjustment													
at April 1, 2010	-	69,849	85,140	643	180,583	(14,315)	6,226	81	(24,740)	—	303,467	16,503	319,970
Reclassification for postretirement benefit liability of foreign													
subsidiaries	_	_	-	_	1,697	_	_	-	-	¥(1,697)	-	-	_
Net income	_	_	—	_	24,428	_	—	—	—	_	24,428	_	24,428
Cash dividends, ¥20 per share	—	_	—	_	(5,879)	_	—	_	—	_	(5,879)	—	(5,879)
Purchase of treasury stock	(108)	_	_	_	_	(148)	_	_	_	_	(148)	_	(148)
Disposal of treasury stock	36	_	(3)	_	_	47	_	_	_	_	44	_	44
Net changes other than													
shareholders' equity	—	_	—	55	—	_	(1,400)	(49)	(12,785)	42	(14,137)	(333)	(14,470)
Balance at March 31, 2011	326,516	69,849	85,137	698	200,829	(14,416)	4,826	32	(37,525)	(1,655)	307,775	16,170	323,945
Net loss	_	_	-	-	(35,609)	-	_	-	_	-	(35,609)	_	(35,609)
Cash dividends, ¥20 per share	-	_	-	_	(6,530)	_	_	-	-	-	(6,530)	-	(6,530)
Purchase of treasury stock	(21)	_	-	_	-	(25)	_	-	-	-	(25)	-	(25)
Disposal of treasury stock	22	_	1	-	_	28	_	-	-	_	29	_	29
Adjustment of retained earnings for subsidiaries which were													
unconsolidated in prior year	-	-	-	-	(6)	-	-	-	-	_	(6)	-	(6)
Net changes other than													
shareholders' equity		_	-	43	_	_	(347)	3	(10,202)	(381)	(10,884)	(6,476)	(17,360)
Balance at March 31, 2012	326,517	¥69,849	¥85,138	¥741	¥158,684	¥(14,413)	¥ 4,479	¥ 35	¥(47,727)	¥(2,036)	¥254,750	¥ 9,694	¥264,444

	Thousands of U.S. Dollars (Note 1)											
						Accu	mulated Other C	omprehensive Inc	ome			
	Common Stock	Capital Surplus	Stock Acquisition Rights	Retained Earnings	Treasury Stock	Unrealized Gain on Available- for-sale Securities	Deferred Gain on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Post- retirement Benefit Liability Adjustment of Foreign Subsidiaries	Total	Minority Interests	Total Equity
Balance at March 31, 2011	\$851,817	\$1,038,256	\$8,512	\$2,449,134	<b>\$(175,805)</b>	\$58,854	\$390	\$(457,622)	\$(20,183)	\$3,753,353	\$197,195	\$3,950,548
Net loss	_	—	_	(434,256)	—	_	-	—	—	(434,256)	_	(434,256)
Cash dividends, \$0.244 per share	—	—	_	(79,634)	_	_	_	_	_	(79,634)	_	(79,634)
Purchase of treasury stock	_	-	_	-	(305)	—	-	_	_	(305)	_	(305)
Disposal of treasury stock	_	12	_	-	342	_	-	-	_	354	_	354
Adjustment of retained earnings for subsidiaries												
which were unconsolidated in prior year	_	-	_	(73)	-	_	-	-	_	(73)	_	(73)
Net changes other than shareholders' equity	_	-	525	-	-	(4,232)	36	(124,415)	(4,646)	(132,732)	(78,976)	(211,708)
Balance at March 31, 2012	\$851,817	\$1,038,268	\$9,037	\$1,935,171	\$(175,768)	\$54,622	\$426	<b>\$(582,037)</b>	\$(24,829)	\$3,106,707	\$118,219	\$3,224,926

See notes to consolidated financial statements.

# **Consolidated Statement of Cash Flows**

NGK Insulators, Ltd. and Consolidated Subsidiaries Year Ended March 31, 2012

	Millions	Thousands of U.S. Dollars (Note 1)	
	2012	2011	2012
Operating Activities:			
(Loss) income before income taxes and minority interests	¥(32,468)	¥ 30,428	\$ (395,951)
Adjustments for: Income taxes—paid	(12,142)	(8,955)	(148,073)
Depreciation and amortization.	18,924	(8,933) 19,042	230,781
Impairment loss on fixed assets associated with reorganization of business structure	2,740	19,042	33,415
Gain on negative goodwill	(1,926)		(23,488)
(Decrease) increase in provision for product warranties	(1,284)	1,562	(15,659)
Increase in provision for NAS Battery safety measures	42,334	1,502	516,268
Equity in earnings of unconsolidated subsidiaries and associated companies	(1,877)	(2,048)	(22,890)
Impairment loss on fixed assets associated with NAS Battery business	4,443	(2,040)	54,183
Changes in assets and liabilities:	4,445	_	54,105
(Increase) decrease in notes and accounts receivable—trade	(8,415)	7,591	(102,622)
	(388)	(18,185)	(4,732)
Increase in other current asset	(1,195)	(3,874)	(14,573)
Decrease in prepaid pension cost	1,140	2,876	13,903
Increase in notes and accounts payable—trade	3,783	4,288	46,134
(Decrease) increase in other current liabilities	(700)	3,973	(8,537)
Other—net	882	(48)	10,756
Total adjustments	46,319	6,222	564,866
Net cash provided by operating activities	13,851	36,650	168,915
Investing Activities: Purchases of marketable securities	(13,113)	(7,095)	(159,915)
Proceeds from sales of marketable securities	17,019	7,779	207,549
Purchases of investment securities	(15,586)	(24,402)	(190,073)
Proceeds from sales and redemption of investment securities	3,697	6,445	45,085
Purchases of property, plant and equipment	(27,767)	(23,932)	(338,622)
Purchases of intangible assets	(1,435)	(599)	(17,500)
(Increase) decrease in time deposits	(2,985)	26,348	(36,402)
Purchase of business	_	(1,275)	_
Purchase of stocks of a subsidiary	(5,368)	(45)	(65,463)
Other—net	100	(1,110)	1,219
Net cash used in investing activities	(45,438)	(17,886)	(554,122)
Financing Activities:			
Increase in short-term borrowings—net.	726	5,536	8,854
Proceeds from long-term debt.	72,777		887,524
Repayment of long-term borrowings	(10,000)	(4,000)	(121,951)
Cash dividends	(6,530)	(5,879)	(79,634)
Other—net	(365)	(803)	(4,451)
Net cash provided by (used in) financing activities.	56,608	(5,146)	690,342
Foreign Currency Translation Adjustments on Cash and Cash Equivalents	(2,904)	(3,986)	(35,415)
Net Increase in Cash and Cash Equivalents	22,117	9,632	269,720
Cash and Cash Equivalents of Newly Consolidated Subsidiaries, Beginning of Year	28	7	341
Cash and Cash Equivalents, Beginning of Year	63,004	53,365	768,341
Cash and Cash Equivalents, End of Year	¥ 85,149	¥ 63,004	\$1,038,402

See notes to consolidated financial statements.

### **Notes to Consolidated Financial Statements**

NGK Insulators, Ltd. and Consolidated Subsidiaries Year Ended March 31, 2012

### **1.** Basis of Presentation of Consolidated Financial Statements

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in conformity with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. In addition,

### 2. Summary of Significant Accounting Policies

**a. Consolidation** — The consolidated financial statements as of March 31, 2012 and 2011 include the accounts of the Company and its 55 significant subsidiaries (together, the "Group").

Under the control or influence concept, those companies in which the Company, directly or indirectly, is able to exercise control over operations are fully consolidated, and those companies over which the Group has the ability to exercise significant influence are accounted for by the equity method.

Investments in one unconsolidated subsidiary and one associated company are accounted for by the equity method in 2012 and 2011.

Investments in the remaining unconsolidated subsidiaries and associated companies are stated at cost. If the equity method of accounting had been applied to the investments in these companies, the effect on the accompanying consolidated financial statements would not be material.

The excess of the cost of acquisition over the fair value of the net assets of an acquired subsidiary at the date of acquisition is being amortized over a period of 5 years.

All significant intercompany balances and transactions have been eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Group is also eliminated.

The fiscal years of the subsidiaries are not necessarily the same as the Company's. Accounts of those subsidiaries, which have different fiscal periods, have been adjusted for significant transactions to reflect properly their financial positions at March 31 of each year and the results of operations for the years then ended.

#### **b.** Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements — In

May 2006, the Accounting Standards Board of Japan (the "ASBJ") issued ASBJ Practical Issues Task Force (PITF) No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements." PITF No. 18 prescribes (1) the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should in principle be unified for the preparation of the consolidated financial statements, (2) financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards or the generally accepted accounting principles in the United States of America ("U.S. GAAP") certain reclassifications have been made in the 2011 consolidated financial statements to conform to the classifications used in 2012.

The consolidated financial statements are stated in Japanese yen, the currency of the country in which NGK INSULATORS, LTD. (the "Company") is incorporated and operates. The translations of Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside Japan and have been made at the rate of ¥82 to \$1, the approximate rate of exchange at March 31, 2012. Such translations should not be construed as representations that the Japanese yen amounts could be converted into U.S. dollars at that or any other rate.

tentatively may be used for the consolidation process, (3) however, the following items should be adjusted in the consolidation process so that net income is accounted for in accordance with Japanese GAAP, unless they are not material: (a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been directly recorded in equity; (c) expensing capitalized development costs of R&D; (d) cancellation of the fair value model accounting for property, plant and equipment and investment properties and incorporation of the cost model accounting; and (e) exclusion of minority interests from net income, if contained in net income.

c. Unification of Accounting Policies Applied to Foreign Associated Companies for the Equity Method — In March 2008, the ASBJ issued ASBJ Statement No. 16, "Accounting Standard for Equity Method of Accounting for Investments." The new standard requires adjustments to be made to conform the associate's accounting policies for similar transactions and events under similar circumstances to those of the parent company when the associate's financial statements are used in applying the equity method unless it is impracticable to determine such adjustments. In addition, financial statements prepared by foreign associated companies in accordance with either International Financial Reporting Standards or the generally accepted accounting principles in the United States of America tentatively may be used in applying the equity method if the following items are adjusted so that net income is accounted for in accordance with Japanese GAAP, unless they are not material: (1) amortization of goodwill; (2) scheduled amortization of actuarial gain or loss of pensions that has been directly recorded in equity; (3) expensing capitalized development costs of R&D; (4) cancellation of the fair value model accounting for property, plant and equipment and investment properties and incorporation of the cost model accounting; and (5) exclusion of minority interests from net income, if contained in net income.

**d. Business Combinations** — In October 2003, the Business Accounting Council issued a Statement of Opinion, "Accounting for Business Combinations," and in December 2005, the ASBJ issued ASBJ Statement No. 7, "Accounting Standard for Business Divestitures" and ASBJ Guidance No. 10, "Guidance for Accounting Standard for Business Combinations and Business Divestitures." The accounting standard for business combinations allows companies to apply the pooling of interests method of accounting only when certain specific criteria are met such that the business combination is essentially regarded as a uniting-of-interests. For business combinations that do not meet the uniting-of-interests criteria, the business combination is considered to be an acquisition and the purchase method of accounting is required. This standard also prescribes the accounting for combinations of entities under common control and for joint ventures.

In December 2008, the ASBJ issued a revised accounting standard for business combinations, ASBJ Statement No. 21, "Accounting Standard for Business Combinations." Major accounting changes under the revised accounting standards are as follows: (1) The revised standard requires accounting for business combinations only by the purchase method. As a result, the pooling of interests method of accounting is no longer allowed. (2) The previous accounting standard required research and development costs to be charged to income as incurred. Under the revised standard, in-process research and development costs (IPR&D) acquired in the business combination is capitalized as an intangible asset. (3) The previous accounting standard provided for a bargain purchase gain (negative goodwill) to be systematically amortized over a period not exceeding 20 years. Under the revised standard, the acquirer recognizes the bargain purchase gain in profit or loss immediately on the acquisition date after reassessing and confirming that all of the assets acquired and all of the liabilities assumed have been identified after a review of the procedures used in the purchase allocation. The revised standard was applicable to business combinations undertaken on or after April 1, 2010.

**e.** Cash Equivalents — Cash equivalents are short-term investments that are readily convertible into cash and that are exposed to insignificant risk of changes in value.

Cash equivalents include time deposits, commercial paper, certificate of deposits and investment trusts that represent short-term investments, all of which mature or become due within three months of the date of acquisition.

**f. Inventories** — Inventories are stated at the lower of cost, determined principally by the average method for finished products, work in process and raw materials, or net selling value (See Note 6). Costs of construction in progress are stated at cost, determined by the individual identification method.

**g. Marketable and Investment Securities** — Marketable and investment securities are classified and accounted for, depending on management's intent, as follows: (1) held-to-maturity debt securities, for which there is the positive intent and ability to hold to maturity are reported at amortized cost; and (2) available-for-sale securities, which are not classified as held-to-maturity debt securities, are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported in a separate component of equity.

Non-marketable available-for-sale securities are stated at cost determined by the moving-average method. For other-than-temporary declines in fair value, investment securities are reduced to net realizable value by a charge to income. h. Property, Plant and Equipment — Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment of the Company and its consolidated domestic subsidiaries is computed by the declining-balance method on the estimated useful lives of the assets, while the straight-line method is applied to all property, plant and equipment of consolidated foreign subsidiaries. The range of useful lives is principally from 15 to 50 years for buildings and structures and from 3 to 12 years for machinery and equipment. The useful lives for lease assets are the terms of the respective leases.

i. Long-Lived Assets — The Group reviews its long-lived assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable. An impairment loss would be recognized if the carrying amount of an asset or asset group exceeds the sum of the undiscounted future cash flows expected to result from the continued use and eventual disposition of the asset or asset group. The impairment loss would be measured as the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling price at disposition.

**j. Intangible Assets** — Depreciation is computed by the straight-line method based on the estimated useful lives of the asset. The useful life of software is five years.

**k. Liability for Retirement Benefits** — The liability for retirement benefits is accounted for based on the projected benefit obligations and plan assets at the balance sheet date.

I. Asset Retirement Obligations — In March 2008, the ASBJ published ASBJ Statement No. 18, "Accounting Standard for Asset Retirement Obligations" and ASBJ Guidance No. 21, "Guidance on Accounting Standard for Asset Retirement Obligations." Under this accounting standard, an asset retirement obligation is defined as a legal obligation imposed either by law or contract that results from the acquisition, construction, development and normal operation of a tangible fixed asset and is associated with the retirement of such tangible fixed asset. The asset retirement obligation is recognized as the sum of the discounted cash flows required for the future asset retirement and is recorded in the period in which the obligation is incurred if a reasonable estimate can be made. If a reasonable estimate of the asset retirement obligation cannot be made in the period the asset retirement obligation is incurred, the liability should be recognized when a reasonable estimate of asset retirement obligation can be made. Upon initial recognition of a liability for an asset retirement obligation, an asset retirement cost is capitalized by increasing the carrying amount of the related fixed asset by the amount of the liability. The asset retirement cost is subsequently allocated to expense through depreciation over the remaining useful life of the asset. Over time, the liability is accreted to its present value each period. Any subsequent revisions to the timing or the amount of the original estimate of undiscounted cash flows are reflected as an increase or a decrease in the carrying amount of the liability and the capitalized amount of the related asset retirement cost.

**m. Stock Options** — In December 2005, the ASBJ issued ASBJ Statement No. 8, "Accounting Standard for Stock Options" and related guidance. The new standard and guidance are applicable to stock options newly granted on and after May 1, 2006. This standard requires companies to recognize compensation expense for employee stock options based on the fair value at the date of grant and over the vesting period as consideration for receiving goods or services. The standard also requires companies to account for stock options granted to non-employees based on the fair value of either the stock option or the goods or services received. In the balance sheet, the stock option is presented as a stock acquisition right as a separate component of equity until exercised. The standard covers equity-settled, share-based payment transactions, but does not cover cash-settled, share-based payment transactions.

**n. Research and Development Costs** — Research and development costs are charged to income as incurred.

**o. Provision for Product Warranties Costs** — The Company and some consolidated subsidiaries estimate and accrue the costs of warranty repair for products sold in reserve for future expenses.

**p.** Provision for NAS Battery Safety Measures — In September 2011, NGK-manufactured NAS (sodium-sulfur) batteries used for storing electricity caught fire. The Company, in connection with the fire accident, reserved an allowance as "Provision for NAS Battery safety measures" for anticipated future expenses on safety measures necessary to expand NAS battery business, to the extent that such amount can be reasonably estimated.

**q. Leases** — In March 2007, the ASBJ issued ASBJ Statement No. 13, "Accounting Standard for Lease Transactions," which revised the previous accounting standard for lease transactions issued in June 1993. The revised accounting standard for lease transactions was effective for fiscal years beginning on or after April 1, 2008.

Under the previous accounting standard, finance leases that were deemed to transfer ownership of the leased property to the lessee were capitalized. However, other finance leases were permitted to be accounted for as operating lease transactions if certain "as if capitalized" information was disclosed in the note to the lessee's financial statements. The revised accounting standard requires that all finance lease transactions be capitalized by recognizing lease assets and lease obligations in the balance sheet. In addition, the accounting standard permits leases which existed at the transition date and do not transfer ownership of the leased property to the lessee to continue to be accounted for as operating lease transactions.

The Company applied the revised accounting standard effective April 1, 2008. In addition, the Company continues to account for leases which existed at the transition date and do not transfer ownership of the leased property to the lessee as operating lease transactions.

All other leases are accounted for as operating leases.

**r. Construction Contracts** — In December 2007, the ASBJ issued ASBJ Statement No. 15, "Accounting Standard for Construction Contracts" and ASBJ Guidance No. 18, "Guidance on Accounting

Standard for Construction Contracts." Under this accounting standard, the construction revenue and construction costs should be recognized by the percentage-of-completion method, if the outcome of a construction contract can be estimated reliably. When total construction revenue, total construction costs and the stage of completion of the contract at the balance sheet date can be reliably measured, the outcome of a construction contract can be estimated reliably. If the outcome of a construction contract cannot be reliably estimated, the completed-contract method should be applied. When it is probable that the total construction costs will exceed total construction revenue, an estimated loss on the contract should be immediately recognized by providing for a loss on construction contracts.

s. Income Taxes — The provision for current income taxes is computed based on the pretax income included in the consolidated statement of operations. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred taxes are measured by applying currently enacted tax laws to the temporary differences.

t. Foreign Currency Transactions — All short-term and long-term monetary receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rates at the balance sheet date. The foreign exchange gains and losses from translation are recognized in the consolidated statement of operations to the extent that they are not hedged by forward exchange contracts.

**u.** Foreign Currency Financial Statements — The balance sheet accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the current exchange rate as of the balance sheet date except for equity, which is translated at the historical rate. Differences arising from such translation are shown as "Foreign currency translation adjustments" under accumulated other comprehensive income in a separate component of equity. Revenue and expense accounts of consolidated foreign subsidiaries are translated into yen at the average exchange rate.

v. Derivatives and Hedging Activities — The Group uses derivative financial instruments to manage its exposures to fluctuations in foreign exchange and interest rates. Foreign exchange forward contracts, interest rate and currency swap, and interest rate swaps are utilized by the Group to reduce foreign currency exchange and interest rate risks. The Group does not enter into derivatives for trading or speculative purposes.

Derivative financial instruments and foreign currency transactions are classified and accounted for as follows: (1) all derivatives are recognized as either assets or liabilities and measured at fair value, and gains or losses on derivative transactions are recognized in the consolidated statement of operations and (2) for derivatives used for hedging purposes, if such derivatives qualify for hedge accounting because of high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on derivatives are deferred until maturity of the hedged transactions.

The foreign currency forward contracts employed to hedge foreign exchange exposures for export sales are measured at fair value and the unrealized gains/losses are recognized in income. Forward contracts applied for forecasted (or committed) transactions are also measured at fair value but the unrealized gains/losses are deferred until the underlying transactions are completed.

Long-term debt denominated in foreign currencies for which foreign exchange forward contracts are used to hedge the foreign currency fluctuations is translated at the contracted rate if the forward contracts qualify for hedge accounting.

Interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not remeasured at market value but the differential paid or received under the swap agreements is recognized and included in interest expense or income.

w. Per Share Information — Basic net income per share is computed by dividing net income available to common shareholders by the weighted-average number of common shares outstanding for the period, retroactively adjusted for stock splits.

Diluted net income per share reflects the potential dilution that could occur if securities were exercised or converted into common stock. Diluted net income per share of common stock assumes full conversion of the outstanding convertible notes and bonds at the beginning of the year (or at the time of issuance) with an applicable adjustment for related interest expense, net of tax, and full exercise of outstanding warrants.

Cash dividends per share presented in the accompanying consolidated statements of income are dividends applicable to the respective years including dividends to be paid after the end of the year.

x. Accounting Changes and Error Corrections — In December 2009, the ASBJ issued ASBJ Statement No. 24, "Accounting Standard for Accounting Changes and Error Corrections" and ASBJ Guidance No. 24, "Guidance on Accounting Standard for Accounting Changes and Error Corrections." Accounting treatments under this standard and guidance are as follows: (1) Changes in Accounting Policies-When a new accounting policy is applied with revision of accounting standards, the new policy is applied retrospectively unless the revised accounting standards include specific transitional provisions. When the revised accounting standards include specific transitional provisions, an entity shall comply with the specific transitional provisions. (2) Changes in Presentations—When the presentation of financial statements is changed, prior-period financial statements are reclassified in accordance with the new presentation. (3) Changes in Accounting Estimates—A change in an accounting estimate is accounted for in the period of the change if the change affects that period only, and is accounted for prospectively if the change affects both the period of the change and future periods. (4) Corrections of Prior-Period Errors—When an error in prior-period financial statements is discovered, those statements are restated. This accounting standard and the guidance are applicable to accounting changes and corrections of prior-period errors which are made from the beginning of the fiscal year that begins on or after April 1, 2011.

### y. New Accounting Pronouncements

Accounting Standard for Retirement Benefits — On May 17, 2012, the ASBJ issued ASBJ Statement No. 26, "Accounting Standard for Retirement Benefits" and ASBJ Guidance No. 25, "Guidance on Accounting Standard for Retirement Benefits," which replaced the Accounting Standard for Retirement Benefits that had been issued by the Business Accounting Council in 1998 with effective date of April 1, 2000 and the other related practical guidances, being followed by partial amendments from time to time through 2009.

Major changes are as follows:

(a) Treatment in the balance sheet

Under the current requirements, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss are not recognized in the balance sheet, and the difference between retirement benefit obligations and plan assets (hereinafter, "deficit or surplus"), adjusted by such unrecognized amounts, are recognized as a liability or asset.

Under the revised accounting standard, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss shall be recognized within equity (accumulated other comprehensive income), after adjusting for tax effects, and the deficit or surplus shall be recognized as a liability (liability for retirement benefits) or asset (asset for retirement benefits).

(b) Treatment in the statement of income and the statement of comprehensive income (or the statement of income and comprehensive income)

The revised accounting standard would not change how to recognize actuarial gains and losses and past service costs in profit or loss. Those amounts would be recognized in profit or loss over a certain period no longer than the expected average remaining working lives of the employees. However, actuarial gains and losses and past service costs that arose in the current period and yet to be recognized in profit or loss shall be included in other comprehensive income and actuarial gains and losses and past service costs that were recognized in other comprehensive income in prior periods and then recognized in profit or loss in the current period shall be treated as reclassification adjustments.

This accounting standard and the guidance are effective for the end of annual periods beginning on or after April 1, 2013 with earlier application being permitted from the beginning of annual periods beginning on or after April 1, 2013. However, no retrospective application of this accounting standard to consolidated financial statements in prior periods is required.

### **3.** Accounting Change

In connection with the elimination of Last-In, First-Out (LIFO) method under Japanese accounting standards recently implemented, which are aimed at convergence with IFRS, the company reconsidered its inventory valuation methodology with a view to unify the accounting policies applied to its subsidiaries. As a result of the reconsideration, some of its subsidiaries applying U.S. GAAP elected to change their inventory valuation method, from the First-In, First-Out (FIFO) method or the LIFO method to the Weighted-Average cost method from the beginning of the current period. This change in accounting policy was applied retrospectively, and the consolidated financial statements for the year ended March 31, 2011 were restated.

The effects of this accounting policy change for 2011 were as follows: (1) Consolidated balance sheet as of March 31, 2011— "inventories" and "retained earnings" increased by ¥686 million

### **4.** Business Combination

On January 24, 2012, the Company launched a public tender offer for Energy Support Corporation ("Energy Support"). As of March 31, 2011, the Company had a 49.4% of ownership interest in Energy Support. The Company intended to acquire all remaining shares of Energy Support and make it a wholly owned company. As a result of the tender offer, the Company purchased an additional 46.9% of Energy Support's common stock, resulting in a 96.3% ownership interest as of March 31, 2012.

The acquisition cost was ¥3,947 million in cash including ¥122 million of related costs. Negative goodwill of ¥1,924 million was immediately recognized in the consolidated statement of operations as "Gain on negative goodwill". The investment climate of the electric power companies, which are the main customers of the Group has changed significantly, and the business environment is not expected to recover for several years. Under these circumstances, the

and ¥471 million, respectively, while deferred tax assets decreased by ¥277 million. (2) Consolidated statement of income for the year ended March 31, 2011—"operating income," and "income before income taxes and minority interests," decreased by ¥54 million, respectively, and "net income before minority interests" and "net income" both decreased by ¥34 million. (3) Per share of common stock for the year ended March 31, 2011—"basic net income" and "diluted net income" both decreased by ¥0.11. (4) Consolidated statement of cash flows for the year ended March 31, 2011—in the operating activities, income before income taxes and minority interests decreased by ¥54 million and "increase in inventories" increased by ¥146 million. (5) Consolidated statement of changes in equity—"retained earnings" as of April 1, 2010 increased by ¥506 million.

electric power business is undergoing a restructuring, and the Company considered various measures to enhance its long-term revenue base. As a result, it was concluded that the best measure was for the Company to make Energy Support a wholly owned company through a public tender offer, because it is necessary that the Company and Energy Support structure a firm, bilateral cooperative strategy, while, at the same time, establishing and executing a flexible management strategy which is not biased against short-term profit making, and, moreover, to make decision making possible while implementing its strategy agilely and flexibly.

The Company was scheduled to acquire all remaining shares of Energy Support through additional procedures in accordance with the Companies Act of Japan (the "Companies Act"), in order to make it a wholly owned subsidiary.

### 5. Marketable and Investment Securities

Marketable and investment securities as of March 31, 2012 and 2011 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2012	2011	2012
Current:			
Investment trusts and other	¥ 6,320	¥10,821	\$ 77,073
Debt securities	11,882	7,101	144,902
Total	¥18,202	¥17,922	\$221,976
Non-current:			
Equity securities and other	¥26,598	¥28,538	\$324,366
Debt securities	31,633	25,529	385,768
Total	¥58,231	¥54,067	\$710,134

	Millions of Yen			
M 1 24 2042		Unrealized	Unrealized	
March 31, 2012	Cost	Gains	Losses	Fair Value
Securities classified as:				
Available-for-sale:				
Equity securities	¥17,502	¥8,161	¥1,190	¥24,473
Investment trusts and other	6,358	76	114	6,320
Held-to-maturity:				
Debt securities	43,516	260	404	43,372
		Millions	s of Yen	
		Unrealized	Unrealized	
March 31, 2011	Cost	Gains	Losses	Fair Value
Securities classified as:				
Available-for-sale:				
Equity securities	¥18,145	¥8,963	¥698	¥26,410
Investment trusts and other	10,804	120	103	10,821
Held-to-maturity:				

The costs and aggregate fair values of marketable and investment securities at March 31, 2012 and 2011 were as follows:

	Thousands of U.S. Dollars			
		Unrealized	Unrealized	
March 31, 2012	Cost	Gains	Losses	Fair Value
Securities classified as:				
Available-for-sale:				
Equity securities	\$213,439	\$99,524	\$14,512	\$298,451
Investment trusts and other	77,537	926	1,390	77,073
Held-to-maturity:				
Debt securities	530,683	3,171	4,927	528,927

32,630

Available-for-sale securities whose fair values are not readily determinable as of March 31, 2012 and 2011 were as follows:

	Carrying amount		
	Millions of Yen		Thousands of U.S. Dollars
	2012	2011	2012
Available-for-sale:			
Equity securities and other	¥2,124	¥2,128	\$25,903
Total	¥2,124	¥2,128	\$25,903

Proceeds from sales of available-for-sale securities for the years ended March 31, 2012 and 2011 were ¥517 million (\$6,305 thousand) and ¥913 million, respectively. Gross realized gains and losses on these sales, computed on the moving average cost basis, were

Debt securities

¥14 million (\$170 thousand) and ¥32 million (\$390 thousand),respectively, for the year ended March 31, 2012 and ¥55 million and¥88 million, respectively, for the year ended March 31, 2011.

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757

31,881

The carrying values of debt securities and investment trusts and other by contractual maturities for securities classified as available-for-sale and held-to-maturity at March 31, 2012 were as follows:

	Millions of Yen		Thousands of	U.S. Dollars
	Available-for-	Held-to-	Available-	Held-to-
	Sale	Maturity	for-Sale	Maturity
Due in one year or less	¥3,000	¥11,880	\$36,585	\$144,878
Due after one year through five years	_	31,655	—	386,037
Total	¥3,000	¥43,535	\$36,585	\$530,915

### 6. Inventories

Inventories at March 31, 2012 and 2011 consisted of the following:

	Millions of Yen		U.S. Dollars
	2012	2011	2012
Finished products	¥30,632	¥35,395	\$373,561
Semi-finished products	9,607	8,178	117,158
Work in process	7,770	7,996	94,756
Raw materials	15,832	13,181	193,073
Supplies	14,799	16,671	180,476
Cost of contracts in progress	618	504	7,537
Total	¥79,258	¥81,925	\$966,561

### 7. Long-Lived Assets

The Group reviewed its long-lived assets for impairment as of March 31, 2012. As a result, the Group recognized ¥4,443 million (\$54,183 thousand) as impairment loss on production equipment of NAS Battery because its start of operation is unknown at the present time due to the fire accident which occurred in September 2011. The losses are included in "Loss on NAS Battery safety measures" in the consolidated statement of operations. In addition, the Company recognized impairment losses on Porcelain Insulator production equipment because the production capacity of the existing four insulator plants in Japan and China is redundant due to the continuing stagnation of the insulator business market. The losses are presented on the consolidated statement of operations as "Impairment loss on fixed assets associated with reorganization of business structure."

### 8. Short-Term Borrowings and Long-Term Debt

Short-term borrowings loans at March 31, 2012 and 2011 consisted of notes to banks. The weighted-average interest rates on short-term borrowings as of March 31, 2012 and 2011 were 2.5% and 1.9%, respectively.

Long-term debt at March 31, 2012 and 2011 consisted of the following:

	Millions	of Yen	Thousands of U.S. Dollars
	2012	2011	2012
Borrowings from banks and other financial institutions due serially to 2027 with			
weighted-average interest rates of 1.3% (2012) and 1.5% (2011)	¥106,701	¥44,108	\$1,301,232
Unsecured 0.734% yen bonds due December 4, 2014	20,000	20,000	243,902
Total	126,701	64,108	1,545,134
Less: portion due within one year	(8,000)	(10,108)	(97,561)
Long-term debt, less current portion	¥118,701	¥54,000	\$1,447,573

Annual maturities of long-term debt at March 31, 2012, were as follows:

Year ending March 31	Millions of Yen	Thousands of U.S. Dollars
2013	¥ 8,000	\$ 97,561
2014	—	—
2015	20,101	245,134
2016	6,000	73,170
2017	17,003	207,354
2018 and thereafter	75,597	921,915
Total	¥126,701	\$1,545,134

### 9. Liability for Retirement Benefits

The Company and certain consolidated subsidiaries have severance payment plans for employees, directors and corporate auditors.

The Company and certain domestic subsidiaries have unfunded retirement plans, contributory pension plans and/or non-contributory pension plans.

Certain U.S. subsidiaries have defined benefit plans or defined contribution plans. Certain domestic subsidiaries contribute to a

multi-employer pension plan.

The liability for retirement benefits at March 31, 2012 and 2011 for directors and corporate auditors is ¥79 million (\$963 thousand) and ¥58 million, respectively. The retirement benefits for directors and corporate auditors are paid subject to the approval of the shareholders.

The liability for employees' retirement benefits, except for the directors and corporate auditors described above, at March 31, 2012 and 2011 consisted of the following:

	Millions of Yen		Thousands of U.S. Dollars
	2012	2011	2012
Projected benefit obligation	¥ 78,680	¥ 77,995	\$ 959,512
Fair value of plan assets	(66,891)	(67,490)	(815,744)
Unrecognized prior service benefit	2,135	2,670	26,036
Unrecognized actuarial loss	(17,203)	(17,812)	(209,792)
Net asset	(3,279)	(4,637)	(39,988)
Prepaid pension cost	16,946	18,086	206,658
Other postretirement obligation	2,798	2,714	34,121
Amount recognized as liability	¥ 16,465	¥ 16,163	\$ 200,793

The components of net periodic benefit costs for the years ended March 31, 2012 and 2011 were as follows:

	Millions of Yen		U.S. Dollars	
	2012	2011	2012	
Service cost	¥ 2,631	¥ 2,517	\$ 32,085	
Interest cost	1,644	1,689	20,049	
Expected return on plan assets	(1,454)	(1,460)	(17,732)	
Amortization of prior service benefit	(524)	(528)	(6,390)	
Recognized actuarial loss	2,684	2,952	32,732	
Other	21	12	256	
Net periodic benefit costs	¥ 5,002	¥ 5,182	\$ 61,000	

Assumptions used for the years ended March 31, 2012 and 2011 are set forth as follows:

	2012	2011
Discount rate	Primarily 2.0%	Primarily 2.0%
Expected rate of return on plan assets	Primarily 1.8%	Primarily 1.7%
Amortization period of prior service cost/benefit	Primarily 10 years	Primarily 10 years
Recognition period of actuarial gain/loss	Primarily 10 years	Primarily 10 years

Funded status of the multi-employer pension plan at March 31, 2011 and 2010 (available information as of March 31, 2012 and 2011), to which contributions were recorded as net periodic retirement benefit costs, was as follows:

	Millions	s of Yen	Thousands of U.S. Dollars
	2012	2011	2012
Fair value of plan assets	¥ 258,978	¥ 267,165	\$ 3,158,268
Pension benefit obligation records recorded by pension fund	(300,200)	(304,796)	(3,660,975)
Difference	¥ (41,222)	¥ (37,631)	\$ (502,707)

The Group's contribution percentage for the multi-employer pension plan is 1.8%

Note 1. The difference mainly resulted from revaluation of plan assets of ¥14,970 million.

2. Prior service cost is amortized over 20 years.

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### **10.** Equity

Japanese companies are subject to the Companies Act. The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

#### a. Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders meeting. For companies that meet certain criteria such as (1) having a Board of Directors, (2) having independent auditors, (3) having a Board of Corporate Auditors, and (4) the term of service of the directors is prescribed as one year rather than two years of normal term by its articles of incorporation, the Board of Directors may declare dividends (except for dividends-in-kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. However, the Company cannot do so because it does not meet all the above criteria.

Semiannual interim dividends may also be paid once a year upon resolution by the Board of Directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million. b. Increases/Decreases and Transfer of Common Stock, Reserve and Surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus) depending on the equity account charged upon the payment of such dividends until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts under certain conditions upon resolution of the shareholders.

c. Treasury Stock and Treasury Stock Acquisition Rights The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders which is determined by specific formula. Under the Companies Act, stock acquisition rights are presented as a separate component of equity. The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

### **11.** Stock Options

The stock options outstanding as of March 31, 2012 were as follows:

Stock Option Schemes	Persons Originally Granted	Number of Options Originally Granted	Date of Grant	Exercise Price	Exercise Period
2005 Stock Option Scheme	12 directors 2 full-time corporate auditors 10 officers	Common shares 180,000 shares	August 5, 2005	¥1 (\$0.01)	From August 5, 2005 To June 30, 2035
2006 Stock Option Scheme (2-1)	12 directors 2 full-time corporate auditors	Common shares 113,000 shares	August 11, 2006	¥1 (\$0.01)	From August 12, 2006 To June 30, 2036
2006 Stock Option Scheme (2-2)	10 officers	Common shares 41,000 shares	August 11, 2006	¥1 (\$0.01)	From August 12, 2006 To June 30, 2036
2007 Stock Option Scheme	12 directors 10 officers	Common shares 62,000 shares	August 30, 2007	¥1 (\$0.01)	From August 31, 2007 To June 30, 2037
2008 Stock Option Scheme	11 directors 9 officers	Common shares 57,000 shares	August 13, 2008	¥1 (\$0.01)	From August 14, 2008 To June 30, 2038
2009 Stock Option Scheme	12 directors 10 officers	Common shares 62,000 shares	August 17, 2009	¥1 (\$0.01)	From August 18, 2009 To June 30, 2039
2010 Stock Option Scheme	12 directors 11 officers	Common shares 64,000 shares	August 16, 2010	¥1 (\$0.01)	From August 17, 2010 To June 30, 2040
2011 Stock Option Scheme	11 directors 11 officers	Common shares 62,000 shares	August 15, 2011	¥1 (\$0.01)	From August 16, 2011 To June 30, 2041

The stock option activity is as follows:

	Shares							
_	2005 Stock Option	2006 Stock Option (2-1)	2006 Stock Option (2-2)	2007 Stock Option	2008 Stock Option	2009 Stock Option	2010 Stock Option	2011 Stock Option
For the year ended March 31, 2011								
Non-vested								
April 1, 2010—Outstanding	—		—		—	—	—	
Granted	—		—		—	—	64,000	
Canceled	—	_	—	_	—	—	—	_
Vested	—	_	—	_	—	—	(64,000)	_
March 31, 2011—Outstanding	_	_	_	—	—	—	_	—
Vested								
April 1, 2010—Outstanding	145,000	100,000	37,000	62,000	57,000	62,000	_	_
Vested	_	_	_	_	—	_	64,000	_
Exercised	(10,000)	(7,000)	(4,000)	(3,000)	—	_	_	_
Canceled	—	_	_	_	—	_	_	_
March 31, 2011—Outstanding	135,000	93,000	33,000	59,000	57,000	62,000	64,000	—
For the year ended March 31, 2012								
Non-vested								
March 31, 2011—Outstanding	—	—	—	—	—	—	—	—
Granted	—		—	—	—	—	—	62,000
Canceled	—	—	—	—	—	—	—	—
Vested	—	—	—	—	—	—	—	(62,000)
March 31, 2012—Outstanding	—		—	—	—	_	_	—
Vested								
March 31, 2011—Outstanding	135,000	93,000	33,000	59,000	57,000	62,000	64,000	—
Vested	—		—	—	—	_	_	62,000
Exercised	(6,000)		(5,000)	(4,000)	(2,000)	_	_	—
Canceled	—	_	_	—	—	_	_	—
March 31, 2012—Outstanding	129,000	93,000	28,000	55,000	55,000	62,000	64,000	62,000
Exercise price	¥1	¥1	¥1	¥1	¥1	¥1	¥1	¥1
	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)	(\$0.01)
Average stock price at exercise	¥1,151	N/A	¥1,151	¥1,070	¥1,151	N/A	N/A	N/A
	(\$14.04)		(\$14.04)	(\$13.05)	(\$14.04)			
Fair value price at grant date	_	¥1,506	¥1,506	¥3,658	¥1,434	¥2,072	¥1,289	¥1,100
		(\$18.37)	(\$18.37)	(\$44.61)	(\$17.49)	(\$25.27)	(\$15.72)	(\$13.41)

The Assumptions Used to Measure the Fair Value of 2012 Stock Option

Estimate method:	Black-Scholes option pricing model
Volatility of stock price:	51.60%
Estimated remaining outstanding period:	Four and a half years
Estimated dividend:	¥20 per share
Risk free interest rate:	0.38%

# **12.** Income Taxes

The Company and its domestic subsidiaries are subject to Japanese national and local income taxes which, in the aggregate, resulted in a normal effective statutory tax rate of approximately 40.5% for the years ended March 31, 2012 and 2011.

The tax effects of significant temporary differences and tax loss carryforwards which resulted in deferred tax assets and liabilities at March 31, 2012 and 2011 were as follows:

	Millions	of Yen	Thousands of U.S. Dollars
	2012	2011	2012
Deferred tax assets:			
Inventories	¥ 9,438	¥ 3,807	\$ 115,098
Allowance for bad debt	125	154	1,524
Accounts payable and accrued expenses	2,525	3,035	30,793
Accrued enterprise tax	176	301	2,147
Property, plant and equipment	5,328	4,145	64,975
Pension and severance costs	6,241	6,688	76,110
Tax loss carry forwards	3,499	2,249	42,671
Investment securities	284	103	3,463
Reserve for bonus payment	558	601	6,805
Tax deduction of a foreign subsidiary	1,777	4,014	21,671
Provision for NAS Battery safety measures	15,986	_	194,951
Other	2,652	3,814	32,341
Total	48,589	28,911	592,549
Less: valuation allowance	(15,205)	(6,886)	(185,427)
Offset with deferred tax liabilities	(7,955)	(7,185)	(97,012)
Net deferred tax assets	¥ 25,429	¥14,840	\$ 310,110
Deferred tax liabilities:			
Unrealized gain on available-for-sale securities	¥ 2,426	¥ 3,348	\$ 29,585
Deferred gains on sales of property	1,550	1,098	18,903
Undistributed earnings of foreign subsidiaries	3,353	1,660	40,890
Fixed asset	535	481	6,524
Prepaid pension cost	6,345	7,330	77,378
Other	620	450	7,561
Total	14,829	14,367	180,841
Offset with deferred tax assets	(7,955)	(7,185)	(97,012)
Net deferred tax liabilities	¥ 6,874	¥ 7,182	\$ 83,829

A reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statements of operations (income) for the years ended March 31, 2012 and 2011 was as follows:

	2012	2011
Normal effective statutory tax rate	Omitting note because	40.5%
Expenses not deductible for income tax purposes	of loss before income	1.3
Tax deduction such as R&D expenses	taxes and minority interests	(1.9)
Revenues excluded from income tax such as dividend received	interests	(0.7)
Decrease in valuation allowances		(7.9)
Undistributed earnings of foreign subsidiaries		0.5
Lower income tax rates applicable to income in certain foreign countries		(11.3)
Equity in earnings of unconsolidated subsidiaries and associated companies		(2.6)
Other—net		(0.6)
Actual effective tax rate		17.3%

On December 2, 2011, new tax reform laws were enacted in Japan, which changed the normal effective statutory tax rate from approximately 40.5% to 37.8% effective for the fiscal years beginning on or after April 1, 2012 through March 31, 2015, and to 35.4% thereafter. The effect of this change was to decrease deferred taxes in the consolidated balance sheet as of March 31, 2012 by ¥316 million (\$3,853 thousand) and to increase income taxes—deferred in the consolidated statement of operations for the year then ended by

¥669 million (\$8,159 thousand), unrealized gain on available-for-sale securities by ¥350 million (\$4,268 thousand) and deferred gain on derivatives under hedge accounting by ¥3 million (\$37 thousand).

In March 2012, NGK received a correction notice from Nagoya Regional Taxation Bureau, based on transfer pricing taxation regarding transactions between NGK and two U.S./Poland subsidiaries. Accordingly, NGK accounted for the amount of additional tax to be paid as "Income taxes for previous periods."

### **13.** Research and Development Costs

Research and development costs were ¥11,428 million (\$139,366 thousand) and ¥11,438 million for the years ended March 31, 2012 and 2011, respectively, which included consigned research costs of ¥896 million (\$10,927 thousand) and ¥1,204 million for the years ended March 31, 2012 and 2011, respectively.

### 14. Leases

The minimum rental commitments under non-cancellable operating leases at March 31, 2012 were as follows:

	U.S. Dollars
¥247	\$3,012
499	6,073
¥746	\$9,085
	¥247 499 ¥746

### **15.** Financial Instruments and Related Disclosures

#### (1) Group policy for financial instruments

The Group finances funds by borrowings from banks or other financial institutions and the issuance of corporate bonds. Temporary excess funds are invested mainly in low-risk financial assets. Group policy for using derivatives is not for speculation, but for hedging the risks from operating receivables and payables.

# (2) Nature and extent of risks arising from financial instruments, and risk management for financial instruments

The credit risks from receivables, such as trade notes and trade accounts are managed by each business unit according to the characteristics of the customers. Although receivables in foreign currencies are exposed to the market risk of fluctuation in foreign currency exchange rates, a certain percentage of the position, net of payables in foreign currencies, is hedged by using forward foreign currency contracts.

Marketable and investment securities, which consist mainly of held-to-maturity bonds and the capital stocks of customers or suppliers, are exposed to market risk; however, the risk is insignificant with respect to the bonds. To manage the risk, the market price and the financial position of the issuers are reviewed constantly. Moreover, with respect to those other than held-to-maturity, the portfolio is constantly reviewed considering market circumstances and relationships with the issuers.

Payment terms of nearly all trade payables, including notes and accounts, are less than four months.

The borrowings from the financial institutions and debenture bonds are principally raised for capital investment, and their maximum maturities do not exceed 14 years and 11 months after the balance sheet date. All such long-term debts carry fixed interest rates. However, a part of such fixed rates are converted to floating rates by using interest-rate swap derivatives, and are exposed to the market risks of rising interest rates.

Derivatives consist of forward currency contracts, which are for hedging currency risks from the trade receivables and payables denominated in foreign currencies, currency swaps, which are for hedging currency risks from the borrowings denominated in foreign currencies, and interest rate swaps, which are for reducing cash outflow from interest payments of borrowings. The Company's management believes that the credit risks from those transactions are not significant because the transactions are entered into only with highly rated financial institutions. Derivative transactions are strictly managed complying with internal policies for approval and reporting. For more detail about hedge accounting, including hedging instruments, hedged items, hedge policies and hedge effectiveness, please see Note 2.v.

(3) Supplemental remarks on fair values of financial instruments The contract or notional amounts of derivatives which are shown in Note 16 do not represent the amounts exchanged by the parties and do not measure the Group's exposure to credit or market risk.

		Millions of Yen	
	Carrying		Unrealized
March 31, 2012	Amount	Fair Value	Gain/Loss
Cash and cash equivalents	¥ 85,149	¥ 85,149	_
Time deposits	12,776	12,776	—
Notes and accounts receivable:			
Trade notes and accounts	54,027	53,996	¥ (31)
Marketable and investment securities	74,309	74,165	(144)
Notes and accounts payable:			
Trade notes and accounts	(24,005)	(24,005)	—
Short-term borrowings	(2,924)	(2,924)	—
Current portion of long-term debt	(8,000)	(8,000)	—
Income taxes payable	(3,835)	(3,835)	—
Long-term debt	(118,701)	(118,643)	58
Derivatives	(360)	(360)	—

#### (a) Fair value of financial instruments

	Millions of Yen		
March 21, 2011	Carrying	Fair Malue	Unrealized
March 31, 2011	Amount	Fair Value	Gain/Loss
Cash and cash equivalents	¥ 63,004	¥ 63,004	—
Time deposits	10,290	10,290	—
Notes and accounts receivable:			
Trade notes and accounts	48,907	48,894	¥ (13)
Marketable and investment securities	69,861	69,112	(749)
Notes and accounts payable:			
Trade notes and accounts	(22,957)	(22,957)	—
Short-term borrowings	(3,344)	(3,344)	—
Current portion of long-term debt	(10,108)	(10,108)	—
Income taxes payable	(3,247)	(3,247)	—
Long-term debt	(54,000)	(54,064)	(64)
Derivatives	399	399	—

	Thousands of U.S. Dollars		
	Carrying		Unrealized
March 31, 2012	Amount	Fair Value	Gain/Loss
Cash and cash equivalents	\$ 1,038,402	\$ 1,038,402	_
Time deposits	155,805	155,805	—
Notes and accounts receivable:			
Trade notes and accounts	658,866	658,488	\$ (378)
Marketable and investment securities	906,207	904,451	(1,756)
Notes and accounts payable:			
Trade notes and accounts	(292,744)	(292,744)	—
Short-term borrowings	(35,659)	(35,659)	—
Current portion of long-term debt	(97,561)	(97,561)	_
Income taxes payable	(46,768)	(46,768)	_
Long-term debt	(1,447,573)	(1,446,866)	707
Derivatives	(4,390)	(4,390)	_

#### Cash and cash equivalents and Time deposits

The carrying values of cash and cash equivalents and time deposits approximate fair value because of their short maturities.

#### Notes and accounts receivable

The fair values of the major part of receivables are measured at the amount to be received because of their short maturities while those of some receivables are measured at the amount to be received at maturity discounted at the Group's assumed discount rate determined considering credit risks.

#### Marketable and investment securities

The fair values of marketable and investment securities are measured at the quoted market price of the stock exchange for the equity instruments, and at the quoted price obtained from the financial institution for certain debt instruments. The information of the fair value for the marketable and investment securities by classification is included in Note 5. Notes and accounts payables, Short-term borrowings, Current portion of long-term debt, and Income taxes payable The carrying values of these financial instruments approximate fair value because of their short maturities.

#### Long-term debt

The fair values of long-term debt are determined by discounting the cash flows related to the debt at the Group's assumed corporate borrowing rate.

The long-term loan payables with floating interest rates and hedged with interest rate swaps are accounted for together with the hedging swaps, and the fair value of such loan payables are measured by discounting the total cash flows from the payables and hedging swaps at the Group's assumed corporate borrowing rate.

#### Derivatives

The information of the fair value for derivatives is included in Note 16.

(b) Financial instruments whose fair value cannot be reliably determined

	Million	s of Yen	Thousands of U.S. Dollars
	2012	2011	2012
Investments in equity instruments that do not have a quoted market price in an active market			
Stock of affiliated companies	¥19,631	¥18,277	\$239,402
Other	2,125	2,128	25,915

(4) Maturity analysis for financial assets and securities with contractual maturities

	Millions of Yen			
	Due in One	Due after One Year through	Due after Five Years through	Due after
March 31, 2012	Year or Less	Five Years	Ten Years	Ten Years
Cash and cash equivalents	¥47,596	_		_
Notes and accounts receivable	54,502	¥ 881		—
Held-to-maturity securities				
Debt securities	11,880	31,655	_	—
Available-for-sale securities with contractual maturities				
Others	12,000	—	—	—

	Thousands of U.S. Dollars			
		Due after	Due after	
		One Year	Five Years	
	Due in One	through	through	Due after
March 31, 2012	Year or Less	Five Years	Ten Years	Ten Years
Cash and cash equivalents	\$580,439	—		—
Notes and accounts receivable	664,659	\$ 10,743		—
Held-to-maturity securities				
Debt securities	144,878	386,039	—	—
Available-for-sale securities with contractual maturities				
Others	146,341	_	—	—

Please see Note 8 for annual maturities of long-term debt.

### **16.** Derivatives

The Group enters into derivative financial instruments ("derivatives"), including foreign exchange forward contracts, currency swaps and interest rate swap contracts. The foreign exchange forward contracts are entered into in order to hedge foreign exchange risk associated with certain assets and liabilities denominated in foreign currencies. The currency swap contracts are entered into as a means of managing interest rate risk and foreign exchange risk for loans denominated in foreign currencies. The interest rate swap contracts are entered into as a means of managing the interest rate risk for loans from financial institutions. The Group does not hold or issue derivatives for trading or speculative purposes.

Because the counterparties to these derivatives are limited to major international financial institutions, the Group does not anticipate any losses arising from credit risk.

Derivative transactions entered into by the Group have been made in accordance with internal policies which require approval and reporting of all derivative transactions.

Derivative transactions to which hedge accounting is not applied at March 31, 2012, are as follows:

	Millions of Yen			
At March 31, 2012		Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:				
Selling U.S.\$	¥12,788	_	¥13,172	¥(384)
Selling Euro	4,355	_	4,382	(27)
Buying Japanese Yen	77	_	77	(0)
Buying U.S.\$	219	—	219	0
Total	¥17,439	_	¥17,850	¥(411)

	Millions of Yen			
At March 31, 2011	Contract Amount	Contract Amount Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:				
Selling U.S.\$	¥14,340	—	¥13,909	¥431
Selling Euro	4,606		4,687	(81)
Buying Japanese Yen	67	—	66	(1)
Buying U.S.\$	360	—	360	0
Total	¥19,373	_	¥19,022	¥349

	Thousands of U.S. Dollars			
		Contract Amount		
At March 31, 2012	Contract Amount	Due after One Year	Fair Value	Unrealized Gain/Loss
Foreign currency forward contracts:	Amount			Gail/LOSS
Selling U.S.\$	\$155,951	_	\$160,634	\$(4,683)
Selling Euro	53,110	_	53,439	(329)
Buying Japanese Yen	939	—	939	(0)
Buying U.S.\$	2,671	—	2,671	0
Total	\$212,671	_	\$217,683	\$(5,012)

The fair value of derivative transactions is measured at the quoted price obtained from the financial institutions.

Derivative transactions to which hedge accounting is applied at March 31, 2012, are as follows:

			Millions of Yen	
At March 31, 2012	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Foreign currency forward contracts:				
Selling U.S.\$	Receivables	¥32	—	
Total		¥32	_	
			Millions of Yen	
		Contract	Contract Amount Due after	
At March 31, 2011	Hedged Item	Amount	One Year	Fair Value
At March 31, 2011 Foreign currency forward contracts:	Hedged Item			Fair Value
· · ·	Hedged Item			Fair Value
Foreign currency forward contracts:	5	Amount		Fair Value
Foreign currency forward contracts: Selling U.S.\$	5	Amount		Fair Value — ¥(7)

		Th	ars	
			Contract	
			Amount	
		Contract	Due after	
At March 31, 2012	Hedged Item	Amount	One Year	Fair Value
Foreign currency forward contracts:				
Selling U.S.\$	Receivables	\$390	_	
Total		\$390	_	

The fair value of derivative transactions is measured at the quoted price obtained from the financial institutions.

The contract or notional amounts of derivatives which are shown in the above table do not represent the amounts exchanged by the parties and do not measure the Group's exposure to credit or market risk.

Forward exchange contracted amounts which are assigned to associated assets or liabilities and are reflected on the balance sheet at year end, are not subject to the disclosure of market value information.

			Millions of Yen	
At March 31, 2012	Hedged Item	Contract Amount	Contract Amount Due after One Year	Fair Value
Interest rate swaps: (fixed rate receipt, floating rate payment)	Long-term debt	¥ 2,000	¥ 1,000	¥51
Interest rate swaps: (floating rate receipt, fixed rate payment)*	Long-term debt	46,003	38,003	_
Total		¥48,003	¥39,003	¥51

			Millions of Yen	
44 March 21, 2011		Contract	Contract Amount Due after	
At March 31, 2011	Hedged Item	Amount	One Year	Fair Value
Interest rate swaps: (fixed rate receipt, floating rate payment)	Long-term debt	¥12,000	¥ 2,000	¥58
Interest rate swaps: (fixed rate receipt, floating rate payment)*	Long-term debt	14,000	14,000	_
Total		¥26,000	¥16,000	¥58

		Thousands of U.S. Dollars		
At March 31, 2012		Contract	Contract Amount Due after	E-in Malue
	Hedged Item	Amount	One Year	Fair Value
Interest rate swaps: (fixed rate receipt, floating rate payment)	Long-term debt	\$ 24,390	\$ 12,195	\$622
Interest rate swaps: (floating rate receipt, fixed rate payment)*	Long-term debt	561,012	463,451	_
Total		\$585,402	\$475,646	\$622

\* The above interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not premeasured at market value but the differential paid or received under the swap agreements are recognized and included in interest expense or income. In addition, the fair value of such interest rate swaps in Note 14 is included in that of hedged items (i.e., long-term debt).

			Millions of Yen	
			Contract Amount	
		Contract	Due after	
At March 31, 2012	Hedged Item	Amount	One Year	Fair Value
Currency swaps: (Japanese Yen payment, U.S.\$ receipt)				
(floating rate receipt, fixed rate payment)	Long-term debt	¥10,000	¥10,000	
Total		¥10,000	¥10,000	_
		Т	housands of U.S. Doll	ars
			Contract	
			Amount	
		Contract	Due after	
At March 31, 2012	Hedged Item	Amount	One Year	Fair Value
Currency swaps: (Japanese Yen payment, U.S.\$ receipt)				
(floating rate receipt, fixed rate payment)	Long-term debt	\$121,951	\$121,951	_
Total		\$121,951	\$121,951	

\* The above currency swaps which qualify for hedge accounting and meet specific matching criteria are not premeasured at market value but the differential paid or received under the swap agreements are recognized and included in interest expense or income. In addition, the fair value of such interest rate swaps in Note 15 is included in that of hedged items (i.e., long-term debt).

### **17.** Contingent Liabilities

At March 31, 2012, the Group had contingent liabilities as follows:

	Millions of Yen	Thousands of U.S. Dollars
Guarantees for bank borrowings of employees	¥ 86	\$1,049
Guarantees for bank borrowings of a closely-related company	275	3,354

### **18.** Comprehensive Income

The components of other comprehensive income for the years ended March 31, 2012 were as follows:

	Millior	ns of Yen		usands of 5. Dollars
Unrealized loss on available-for-sale securities:	-			
Losses arising during the year	¥	(2,016)	\$	(24,585)
Reclassification adjustments to profit or loss		666		8,122
Amount before income tax effect		(1,350)		(16,463)
Income tax effect		948		11,560
Total	¥	(402)	\$	(4,903)
Deferred gain on derivatives under hedge accounting:				
Gains arising during the year	¥	127	\$	1,549
Reclassification adjustments to profit or loss		(121)		(1,476)
Amount before income tax effect		6		73
Income tax effect		0		(0)
Total	¥	6	\$	73
Foreign currency translation adjustments: Adjustments arising during the year Reclassification adjustments to profit or loss Total		10,537) 344 10,193)		128,500) 4,195 124,305)
Share of other comprehensive income in associates—	X			
Gains arising during the year	¥	(2)	<u>\$</u>	(24)
Total	¥	(2)	\$	(24)
Postretirement benefit liability adjustments of foreign subsidiaries				
Losses arising during the year	¥	(744)	\$	(9,073)
Reclassification adjustments to profit or loss		124		1,512
Amount before income tax effect		(620)		(7,561)
Income tax effect		239		2,915
Total	¥	(381)	\$	(4,646)
Total other comprehensive income	¥(	10,972)	\$(	133,805)

The corresponding information for the year ended March 31, 2011 was not required under the accounting standard for presentation of comprehensive income as an exemption for the first year of adopting that standard and not disclosed herein.

### **19.** Net Income per Share

Reconciliation of the differences between basic and diluted net income per share ("EPS") for the years ended March 31, 2012 and 2011 was as follows:

	Millions of Yen	Thousands of Shares	Yen	U.S. Dollars
	Net Income	Weighted- Average Shares	EF	2S
Year Ended March 31, 2012				
Basic EPS—Net loss available to common shareholders	¥(35,609)	326,517	¥(109.06)	\$(1.330)
Year Ended March 31, 2011 Basic EPS—Net income available to common shareholders	V 24 429	226 560	V 74.90	
Effect of dilutive securities:	¥ 24,428	326,569	¥ 74.80	
Stock options		486		
Diluted EPS—Net income for computation	¥ 24,428	327,055	¥ 74.69	

Note: Diluted net income per share is not disclosed for the year ended March 31, 2012 because it is anti-dilutive due to the Company's net loss position.

### **20.** Subsequent Events

The following appropriation of retained earnings at March 31, 2012 was approved at the Company's shareholders meeting held on June 28, 2012: **Appropriation of retained earnings** 

	Millions of Yen	Thousands of U.S. Dollars
Year-end cash dividends, ¥10 (\$0.12) per share	¥3,265	\$39,817

### **21.** Segment Information

Under ASBJ Statement No. 17, "Accounting Standard for Segment Information Disclosures" and ASBJ Guidance No. 20, "Guidance on Accounting Standard for Segment Information, an entity is required to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria. Operating segments are components of an entity about which separate financial information is available and such information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Generally, segment information is required to be reported on the same basis as is used internally for evaluating operating segment performance and deciding how to allocate resources to operating segments. (1) Description of Reportable Segments

The Group's reportable segments are components of the Group about which separate financial information is available that is evaluated regularly by the Company's management in deciding how to allocate resources and in assessing performance. The Group develops and conducts its operations under three business groups, Power Business Group, Ceramics Products Business Group and Electronics Business Group, while planning a comprehensive strategy for domestic and overseas markets. Consequently, the Group defines those three business groups as its reportable segments.

Business segment	Main products
Power	Insulators, hardware for insulator assemblies, current limiting arching horn, bushing shells, fuse cut-outs, APM,
	line arrester and NAS (sodium sulfur)-batteries
Ceramics products	Automotive ceramics for exhaust gas purification, corrosion-resistant ceramic apparatuses for chemical indus-
	tries, gas analyzer, industrial heating systems, refractory products and radioactive waste treatment systems
Electronics	Beryllium-copper-wrought products, molds and ceramic components for electronics and semiconductor manu-
	facturing equipment

(2) Methods of Measurement for the Amounts of Sales, Profit (Loss), Assets, Liabilities and Other Items for Each Reportable Segment The accounting policies of each reportable segment are consistent with those disclosed in Note 2, "Summary of Significant Accounting Policies." (3) Information about Sales, Profit (Loss), Assets, Liabilities and Other Items

				Millions	s of Yen			
		Reportable	segment					
2012	Power	Ceramics	Electronics	Total	Other	Total	Reconciliations	Consolidated
Sales								
Sales to customers	¥ 55,827	¥133,768	¥58,224	¥247,819	_	¥247,819	_	¥247,819
Intersegment sales or								
transfers	49	171	—	220	—	220	¥ (220)	—
Total	55,876	133,939	58,224	248,039	_	248,039	(220)	247,819
Segment (loss) profit	(12,194)	33,312	4,893	26,011	_	26,011	43	26,054
Segment assets	91,924	175,159	64,174	331,257	¥240,572	571,829	(48,615)	523,214
Other:								
Depreciation and								
amortization	5,600	9,900	3,424	18,924	—	18,924		18,924
Increase in property,								
plant and equipment								
and intangible assets	2,785	21,026	2,792	26,603	2,236	28,839	_	28,839
Impairment losses on	- 405			- 400				- 400
assets	7,183	_	_	7,183	_	7,183	_	7,183

				Millions	s of Yen			
		Reportable	segment					
2011	Power	Ceramics	Electronics	Total	Other	Total	Reconciliations	Consolidated
Sales								
Sales to customers	¥ 53,811	¥123,835	¥61,717	¥239,363	—	¥239,363	—	¥239,363
Intersegment sales or								
transfers	43	460	—	503	—	503	¥ (503)	—
Total	53,854	124,295	61,717	239,866	—	239,866	(503)	239,363
Segment profit	(8,096)	31,085	9,024	32,013	_	32,013	90	32,103
Segment assets	121,071	163,007	64,550	348,628	¥179,900	528,528	(48,735)	479,793
Other:								
Depreciation and amortization	5,594	9,870	3,578	19,042	_	19,042	_	19,042
plant and equipment and intangible assets	11,166	9,485	2,191	22,842	2,443	25,285	_	25,285

	Thousands of U.S. Dollars							
		Reportable	Segment					
2012	Power	Ceramics	Electronics	Total	Other	Total	Reconciliations	Consolidated
Sales								
Sales to customers	\$ 680,817	\$1,631,317	\$710,049	\$3,022,183	—	\$3,022,183	_	\$3,022,183
Intersegment sales or transfers	598	2,085	_	2,683	_	2,683	\$ (2,683)	_
Total	681,415	1,633,402	710,049	3,024,866	_	3,024,866	(2,683)	3,022,183
Segment (loss) profit	(148,707)	406,244	59,670	317,207	_	317,207	525	317,732
Segment assets	1,121,024	2,136,085	782,610	4,039,719	\$2,933,804	6,973,523	(592,865)	6,380,658
Other:								
Depreciation and amortization	68,293	120,732	41,756	230,781	_	230,781	_	230,781
Increase in property, plant and equipment and intangible assets	33,963	256,415	34,049	324,427	27,268	351,695	_	351,695
Impairment losses on assets	87,598	_	_	87,598	_	87,598	_	87,598

Notes: 1. Reconciliation of segment profit is the adjustment of intersegment transactions.

2. The amount of general corporate assets included in the reconciliation of segment assets is ¥240,572 million (\$2,933,804 thousand) and ¥179,900 million at March 31, 2012 and 2011, respectively, mainly consisted of surplus funds (cash and marketable securities), long-term investment funds (investment securities) and the assets of administrative departments.

3. Increase in property, plant and equipment and intangible assets in other were the increase in corporate departments.

### Information about geographical areas

(1) Sales

			Millions	of Yen			
			20	12			
	North Ar	nerica	Euro	ре			
Japan	USA	Others	Germany	Others	Asia	Other Areas	Total
¥108,557	¥36,778	¥3,519	¥27,189	¥20,434	¥32,925	¥18,417	¥247,819
			Thousands of	U.S. Dollars			
			20	12			
	North Ar	nerica	Euro	pe			
Japan	USA	Others	Germany	Others	Asia	Other Areas	Total
\$1.323.866	\$448.512	\$42.915	\$331.573	\$249.195	\$401.524	\$224,598	\$3.022.183

Sales are attributed to countries based on the location of the customers.

(2) Property, plant and equipment

			Millions of Yen			
			2012			
			A	sia		
Japan	North America	Europe	China	Others	Other Areas	Total
¥80,026	¥20,577	¥11,701	¥18,824	¥3,645	¥672	¥135,445
		Т	housands of U.S. Dollars			
			2012			
	· · · ·		A	sia		
Japan	North America	Europe	China	Other	Other Areas	Total
\$975,927	\$250,939	\$142,695	\$229,561	\$44,451	\$8,195	\$1,651,768

# Subsidiaries and Affiliated Companies | As of March 31, 2012

IAPAN	Company's Direct and Indirect Ownership (%)	Principal Products and Services	5		
ENERGY SUPPORT CORPORATION	96.3	Power distribution equipment	Power distribution equipment		
AKECHI INSULATORS, LTD.	100	Electrical insulators			
IKEBUKURO HORO KOGYO CO., LTD.	78.9	Glass-lined apparatuses			
NGK CHEM-TECH, LTD.	100	Chemical apparatuses and par	ts		
NGK FILTECH, LTD.	90	Membrane filter systems			
NGK ADREC CO., LTD.	96.7	Refractories			
NGK KILNTECH CORPORATION	100	Furnaces and far infrared ray o	eramic heaters		
HEISEI CERAMICS CO., LTD.	60	Refractories			
NGK METEX CORPORATION	100	Beryllium copper wrought pro	ducts		
NGK FINE MOLDS, LTD.	100	Molds			
NGK CERAMIC DEVICE CO., LTD.	100	Ceramic electronic component	ts		
NGK OKHOTSK, LTD.	100	Ceramic electronic component	ts		
SOSHIN ELECTRIC CO., LTD.	40.6	Electronic components and de	vices		
METAWATER CO., LTD.	50	Environmental protection syste	ems		
TAJIMI COUNTRY CLUB CO., LTD.	100	Operation of a golf course			
Other Group Companies					
KANSAI ENERGYS CORPORATION	KYUSYU ENERGYS CORPORATION	CHUBU ENERGYS CORPORATION	HOKURIKU ENERGYS CORPORATION		
TOKAI ENERGYS CORPORATION	ENERGYS SANGYO CORPORATION	SOSHIN DEVICE CO., LTD.	RISSHIN ELECTRONICS CO., LTD.		
	NGK SPORTS PLANNING CO., LTD.	NGK LIFE CO., LTD.	NGK YU-SERVICE CO., LTD.		
SOSHIN POWERTECH CO., LTD.	NGK SPORTS PLANNING CO., LID.				

Global Network | As of March 31, 2012



**NORTH AMERICA** 



LOCKE INSULATORS, INC.



NGK CERAMICS USA, INC.



FM INDUSTRIES, INC.

NGK-LOCKE INC. NGK AUTOMOTIVE CERAMICS USA, INC. NGK ELECTRONICS USA, INC. NGK INSULATORS OF CANADA, LTD.



NGK-LOCKE POLYMER INSULATORS, INC.



NGK METALS CORPORATION



NGK CERAMICS MEXICO, S. DE R.L. DE C.V.

NORTH AMERICA	Company's Direct and Indirect Ownership (%)	Principal Products and Services
NGK NORTH AMERICA, INC.	100	Holding company
LOCKE INSULATORS, INC.	100	Electrical insulators
NGK-LOCKE, INC.	100	Electrical insulators
NGK-LOCKE POLYMER INSULATORS, INC.	100	Electrical polymer insulators
NGK INSULATORS OF CANADA, LTD.	100	Electrical insulators and ceramic products
NGK CERAMICS USA, INC.	100	Automotive ceramics
NGK AUTOMOTIVE CERAMICS USA, INC.	100	Automotive ceramics
■ NGK CERAMICS MEXICO, S. DE R.L. DE C.V.	95	Automotive ceramics
NGK METALS CORPORATION	100	Beryllium copper products
NGK ELECTRONICS USA, INC.	100	Ceramic products
FM INDUSTRIES, INC.	100	Modules for semiconductor production equipment
EUROPE AND AFRICA	Company's Direct and Indirect Ownership (%)	Principal Products and Services
NGK INSULATORS UK LTD.	100	Electrical insulators
NGK CERAMICS EUROPE S.A.	100	Automotive ceramics
NGK EUROPE GMBH	100	Ceramic products
NGK CERAMICS POLSKA SP. Z O.O.	95	Automotive ceramics
NGK CERAMICS SOUTH AFRICA (PTY) LTD.	100	Automotive ceramics
NGK BERYLCO FRANCE	100	Beryllium copper products
NGK BERYLCO U.K. LTD.	100	Beryllium copper products
NGK DEUTSCHE BERYLCO GMBH	100	Beryllium copper products
ASIA PACIFIC	Company's Direct and Indirect Ownership (%)	Principal Products and Services
NGK INSULATORS TANGSHAN CO., LTD.	100	Electrical insulators
NGK INSULATORS SUZHOU CO., LTD.	100	Electrical insulators
NGK STANGER PTY. LTD.	100	Power distribution equipment
NGK INSULATORS (CHINA) INVESTMENT CO.	, LTD. 100	Electrical insulators
P.T. NGK CERAMICS INDONESIA	97.8	Automotive ceramics
SIAM NGK TECHNOCERA CO., LTD.	100	Refractories
NGK CERAMICS SUZHOU CO., LTD.	100	Automotive ceramics
NGK TECHNOCERA SUZHOU CO., LTD.	100	Kiln furniture and firing kiln for electronic ceramics

#### Other Group Companies

- NGK AUTOMOTIVE CERAMICS MEXICO, S. DE R.L. DE C.V.
- ENERGY ELECTRIC (SHANGHAI) CORPORATION
- SOSHIN ELECTRONICS (HK) LIMITED

SOSHIN ELECTRONICS OF AMERICA, INC. NGK AUTOMOTIVE CERAMICS KOREA CO., LTD. TAIWAN SOSHIN ELECTRIC CO., LTD.

Pascassan am

SOSHIN ELECTRONICS EUROPE GMBH

- SOSHIN ELECTRONICS (M) SDN. BHD.
- SOSHIN ELECTRONICS (SZ) LIMITED

#### EUROPE



NGK CERAMICS EUROPE S.A.



NGK CERAMICS POLSKA SP. Z O.O.



NGK BERYLCO FRANCE

NGK INSULATORS UK LTD. NGK BERYLCO U.K. LTD. NGK EUROPE GMBH NGK DEUTSCHE BERYLCO GMBH



**AFRICA** 



NGK CERAMICS SOUTH AFRICA (PTY) LTD.



NGK INSULATORS TANGSHAN

**ASIA PACIFIC** 

mung

CO., LTD.

NGK STANGER PTY. LTD.



NGK TECHNOCERA SUZHOU CO., LTD.

NGK INSULATORS (CHINA) INVESTMENT CO., LTD. NGK AUTOMOTIVE CERAMICS KOREA CO., LTD. NGK INSULATORS, LTD. NEW DELHI LIAISON OFFICE



NGK INSULATORS SUZHOU CO., LTD.



SIAM NGK TECHNOCERA CO., LTD.



PT. NGK CERAMICS INDONESIA



NGK CERAMICS SUZHOU CO., LTD.

### NGK INSULATORS, LTD.

2-56 Suda-cho, Mizuho, Nagoya 467-8530, Japan Tel: +81-52-872-7171 Fax: +81-52-872-7690 URL: http://www.ngk.co.jp/english/

### **Paid-in Capital**

69,849 million yen

### **Common Stock**

337,560 thousand shares

### Number of Shareholders

32,328

### Stock Exchange Listings

Tokyo, Nagoya, Osaka and Sapporo

Information Technology Dept. Construction & Maintenance Dept.

### Auditors

Deloitte Touche Tohmatsu LLC (The Japanese member firm of Deloitte Touche Tohmatsu)

## Organization | As of April 1, 2012

ver Business Group	Head Office
— Business Planning Dept.	Auditing Dept.
Sales Div.	Environmental Management Dept.
Electrical Insulator Div.	Quality Management Dept.
NAS Battery Div.	Corporate Strategy Office
— Quality Assurance Dept.	New Business Planning Office
amic Products Business Group	Secretarial Office
· · · · ·	Public Relations Office
— Business Planning Dept.	Human Resources Dept.
Worldwide Sales and Marketing Div.	CSR Office
Engineering Div.	Finance & Accounting Dept.
Manufacturing Div.	Legal Affairs & Intellectual Property Dept.
Sensor Dept.	General Affairs Dept.
Industrial Process Div.	Purchasing Dept.
— Quality Assurance Dept.	Corporate R&D
tronics Business Group	
Business Planning Dept.	Wafer Project
New Business Development	Functional Materials Development Project
High Performance Ceramics Div.	Advanced Materials Development Center
New Metals Div.	——— Materials Research Laboratory
Electronic Components Div.	Future Technology Management Center
– Quality Assurance Dept.	
	Corporate Manufacturing Engineering
	Administration Dept.
	Manufacturing Engineering Dept.

### **Directors and Corporate Officers**



Shun Matsushita\* Chairman



Takeyuki Mizuno Director and Senior Vice President



Atoshi Yoshimura Director



Hiroaki Sakai Vice President



Shuhei Ishikawa Vice President



Taro Kato\* President



Mitsuo Ibuki Director and Senior Vice President



Hiroyuki Kamano External Director



Hideaki Saito Vice President



Hideki Yamamoto Vice President



Eiji Hamamoto\* Executive Vice President



Toshiyuki Hamanaka Director and Senior Vice President



Toshio Nakamura External Director



Haruo Fukui Vice President



Hiroshi Kurachi Vice President



Hiroshi Fujito\* Executive Vice President



Yukihisa Takeuchi Director and Senior Vice President



Takafumi Hochi Senior Vice President



Nobuo Takahashi Vice President



Takaya Teshima Vice President



Director and Senior Vice President



Taku Oshima Senior Vice President







Ryohei Iwasaki Director and Senior Vice President



Hiroshi Kanie Senior Vice President



Koji Yokoi Vice President







Hiroshi Wada Standing Corporate Auditor



Michio Fukuhara Standing Corporate Auditor



Setsuo Tanaka External Corporate Auditor



Ichiro Terato External Corporate Auditor









Atsushi Matsuda Vice President

















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