

# Summary of Consolidated Financial Results for the Year Ended March 31, 2017 [Japanese GAAP]

April 28, 2017

NGK INSULATORS, LTD. Company Name Stock Exchange Listings Tokyo and Nagoya

Listing Code 5333

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Date of the Annual Shareholders' Meeting (Scheduled)

June 29, 2017 Date of the Filing of Securities Report "Yuka Shoken Hokokusho" (Scheduled) June 29, 2017 Date of Year-End Dividend Payment (Scheduled) June 30, 2017 Available

Availability of Supplementary Explanatory Materials Prepared for Financial Results

Briefing Session on Financial Results to be held Yes (for securities analysts and institutional investors) (All yen amounts are rounded down to the nearest million.)

## 1. Consolidated Financial Results for the Year Ended March 31, 2017 (From April 1, 2016 to March 31, 2017)

#### (1) Consolidated Operating Results

(Percentage figures represent increase (decrease) from previous period.)

	Net s	sales	Operating	g income	Ordinary	income	Profit attributable to owners of parent	
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%
Year ended March 31, 2017	401,266	(7.9)	63,212	(21.9)	64,557	(20.8)	36,379	(31.8)
Year ended March 31, 2016	435,797	15.1	80,898	31.4	81,498	33.5	53,316	28.5

(Note) Comprehensive income : Year ended March 31, 2017 33,978 million yen 36.4% : Year ended March 31, 2016 24,907 million yen (61.6)%

	Profit per share	Diluted profit per share	Ratio of profit to net worth	Ratio of ordinary income to total assets	Ratio of operating income to net sales
	Yen	Yen	%	%	%
Year ended March 31, 2017	112.71	112.51	8.8	8.8	15.8
Year ended March 31, 2016	163.28	162.97	13.3	11.5	18.6

(Reference) Equity in earnings of unconsolidated subsidiaries and associated companies : Year ended March 31, 2017 1,791 million yen : Year ended March 31, 2016 1,020 million yen

# (2) Consolidated Financial Position

	Total assets	Total net assets	Ratio of net worth to total assets	Net worth per share
	Millions of yen	Millions of yen	%	Yen
March 31, 2017	759,434	427,593	54.9	1,295.66
March 31, 2016	711,897	417,972	57.1	1,245.47

(Reference) Net worth : As of March 31, 2017 416,740million yen,

As of March 31, 2016 406,743 million yen

# (3) Consolidated Cash Flows

	Cash flows from	Cash flows from	Cash flows from	Cash & cash equivalents,
	operating activities	investing activities	financing activities	end of year
	Millions of yen	Millions of yen	Millions of yen	Millions of yen
Year ended March 31, 2017	80,172	(56,452)	(13,013)	144,692
Year ended March 31, 2016	59,445	(47,772)	(373)	136,065

## 2. Dividend Payment

	Cash dividends per share					Total amounts	Dividend payout	Ratio of dividends to net	
	First quarter- end	Second quarter- end	Third quarter- end	Year-end	Total (Full- year)	of dividends	ratio (Consolidated)	worth (Consolidated)	
	Yen	Yen	Yen	Yen	Yen	Millions of yen	%	%	
Year ended March 31, 2016	-	18.00	-	20.00	38.00	12,409	23.3	3.1	
Year ended March 31, 2017		20.00	-	20.00	40.00	12,865	35.5	3.1	
Year ending March 31, 2018 (forecast)	-	21.00	-	21.00	42.00		30.0		

#### 3. Forecasts of Consolidated Financial Results for the Fiscal Year Ending March 31, 2018

(Percentage figures represent increase (decrease) from previous period.)

	Net sa	Net sales		Ordinary income		Profit attributable to owners of parent		Profit per share	
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%	Yen
Six months ending September 30, 2017	205,000	5.5	33,000	(3.7)	31,500	(2.7)	20,000	(7.9)	62.18
Year ending March 31, 2018	420,000	4.7	67,000	6.0	68,000	5.3	45,000	23.7	139.91

## Notes

(1) Significa	int changes in subsidiar	ies during this period (c	nanges	in specified	subsidiaries,	"tokutei kogaisha	" defined in the	"Cabinet	Office
Ordinan	ce on Disclosure of Cor	porate Information, etc.	', involv	ing a chang	je of the scop	e of consolidation	during this peri	od): Nor	ne
New	— company (	), Exclusio	ı —	company	(	)			

(2) Changes in accounting policies, accounting estimates or retrospective restatements

i. Changes due to revisions of accounting standards
 ii. Changes in accounting policies other than the above (i)
 iii. Changes in accounting estimates
 iv. Retrospective restatement
 iv. None

(3) Number of shares outstanding (Common Shares)

 Number of shares outstanding at period end including treasury stocks

ii. Number of treasury stocks at period end

iii. Average number of shares outstanding over period

March 31, 2017	327,560,196 shares	March 31, 2016	327,560,196 shares	
2017		2010		
March 31,	5,915,570 shares	March 31,	981,389 shares	
2017	5,915,570 Shares	2016	901,309 Shares	
March 31,	322,760,831 shares	March 31,	326,540,086 shares	
2017	322,760,831 Shares	2016	326,540,086 Shares	

#### (Reference)

#### Overview of Non-Consolidated Financial Results for the Year Ended March 31, 2017 (from April 1, 2016 to March 31, 2017)

#### (1) Non-Consolidated Operating Results

(Percentage figures represent increase (decrease) from previous period.)

							,	,
	Net sales Operating income			Ordinary	/ income	Net income		
	Millions of yen	%	Millions of yen	%	Millions of yen	%	Millions of yen	%
Year ended March 31, 2017	214,319	(11.4)	24,934	(35.7)	47,285	(15.9)	26,329	(26.4)
Year ended March 31, 2016	242,030	16.1	38,805	56.0	56,247	55.5	35,763	106.1

	Net income per share	Diluted net income per share
	Yen	Yen
Year ended March 31, 2017	81.57	81.43
Year ended March 31, 2016	109.52	109.32

## (2) Non-Consolidated Financial Position

/								
	Total assets			Net worth per share				
	Millions of yen	Millions of yen	%	Yen				
March 31, 2017	518,983	260,873	50.1	808.27				
March 31, 2016	498,118	255,993	51.2	781.18				

(Reference) Net worth: As of March 31, 2017 259,974 million yen, As of March 31, 2016 255,117 million yen

- \* These financial statements are not subject to the audit procedure.
- \* Explanation of appropriate use of results forecasts and other notes

This document contains forward-looking statements that are based on information and certain assumption NGK INSULATORS, LTD. ("NGK") has acquired and deemed reasonable as of the time of the release and NGK does not guarantee the achievement of them. Actual future results and trends may differ materially from those in the forecasts due to a variety of factors.



# **Contents of Appendix**

1. Overview of Business Results and Others ······	2
(1) Overview of Business Results for the Fiscal Year Ended March 31, 2017······	2
(2) Summary of Financial Position for the Fiscal Year Ended March 31, 2017······	3
(3) Summary of Cash Flows for the Fiscal Year Ended March 31, 2017 ······	. 3
(4) Forecast for the Next Fiscal Years ······	4
(5) Basic Policy for Profit Sharing and Dividends for the Current and Next Fiscal Years	4
2. Management Policies ·······	5
(1) Basic Management Policies of the Company · · · · · · · · · · · · · · · · · · ·	. 5
(2) Targeted Management Indicators · · · · · · · · · · · · · · · · · · ·	5
(3) Capital Policy ······	5
(4) Medium- to Long-Term Management Strategies and Issues to Be Addressed · · · · · · · · · · · · · · · · · · ·	. 5
3. Basic Policies Concerning Selection of Accounting Standards ······	7
4. Consolidated Financial Statements and Notes Thereto ······	8
(1) Consolidated Balance Sheet · · · · · · · · · · · · · · · · · ·	. 8
(2) Consolidated Statement of Income and Consolidated Statement of Comprehensive Income	10
Consolidated Statement of Income · · · · · · · · · · · · · · · · · · ·	· 10
Consolidated Statement of Comprehensive Income · · · · · · · · · · · · · · · · · · ·	11
(3) Consolidated Statement of Changes in Equity · · · · · · · · · · · · · · · · · · ·	12
(4) Consolidated Statement of Cash Flows · · · · · · · · · · · · · · · · · · ·	· 14
(5) Notes to Consolidated Financial Statements · · · · · · · · · · · · · · · · · · ·	·· 16
(Note on the Assumption as a Going Concern) · · · · · · · · · · · · · · · · · · ·	16
(Significant Items Underlying the Preparation of Consolidated Financial Statements)	16
(Changes in Accounting Policy) · · · · · · · · · · · · · · · · · · ·	·· 16
(Additional Information) · · · · · · · · · · · · · · · · · · ·	16
(Consolidated Balance Sheet) · · · · · · · · · · · · · · · · · · ·	17
(Consolidated Statement of Income) · · · · · · · · · · · · · · · · · · ·	17
(Segment Information) · · · · · · · · · · · · · · · · · · ·	18
(Per Share Information) · · · · · · · · · · · · · · · · · · ·	21
(Significant Subsequent Events) · · · · · · · · · · · · · · · · · · ·	21



#### 1. Overview of Business Results and Others

# (1) Overview of Business Results for the Fiscal Year Ended March 31, 2017

During the fiscal year ended March 31, 2017, the Japanese economy remained on a moderate recovery course underpinned by improvements in the employment and income environment, despite some signs of weakness. Among overseas economies, developed economies, such as the U.S. and Europe, were robust, while emerging countries experienced a slowdown in economic growth.

Under such circumstances, the NGK Group saw an increase in the volume of automobile ceramics in Ceramics Business Segment due to growing passenger cars sales in the Chinese and European markets, as well as a rise in truck sales in China. In the Electronics Business Segment, the quantity of ceramic components for semiconductor manufacturing equipment increased as semiconductors became increasingly shrinking, while demand for ceramic packages used in Chinese mobile phone base stations declined. The Power Business Segment saw sluggish performance due to a decrease in overseas shipments of insulators and a lack of large shipments of NAS® (sodium-sulfur) batteries. As a result of above, along with a decrease in shipments in the Power Business Segment, as well as the impact of the strong yen, total consolidated net sales for the fiscal year ended March 31, 2017 decreased by 7.9% year on year to ¥401,266 million.

In term of earnings, as a result of a decrease in net sales and rising research and development costs, as well as other expenses, operating income decreased by 21.9% year on year to ¥63,212 million and ordinary income decreased by 20.8% to total ¥64,557 million. Profit attribute to owners of parent decreased by 31.8% to total ¥36,379 million owing to posting provision for loss related to competition law totaling ¥6,313 million and a ¥4,161 million impairment loss on fixed assets under extraordinary losses, in addition to posting an estimated amount ¥11,213 million to be paid as a correction based on transfer pricing taxation under income taxes for prior periods, while a ¥5,248 million of gain on the sales of investment securities was recorded under extraordinary income.

Financial results by segment are as follows.

# [Power Business Segment]

Net sales of the Power Business Segment decreased by 36.8% year on year to ¥52,825 million.

Although shipments of insulators to domestic power companies were steady, low replacement demand in North America led to a decline in revenue. Sales of NAS® batteries were sluggish due to a lack of large shipments.

In terms of earnings, decreased sales and other factors resulted in an operating loss of ¥6,622 million from an operating income of ¥2,577 million in the previous fiscal year.

#### [Ceramics Business Segment]

Net sales of the Ceramics Business Segment decreased by 2.4% year on year to ¥245,221 million.

Sales volumes of automotive ceramics, such as ceramic substrates for catalytic conversion (HONEYCERAM and large-size HONEYCERAM) and NOx sensors, increased due primarily to favorable sales of passenger cars in the European market, in addition to an increase in small passenger cars sales in response to tax reduction measures and an increase in truck sales in response to strict controls on overloaded vehicles in China. Net sales were down year on year due to the impact of the strong yen, despite increasing sales volumes. Revenues from industrial process apparatuses, especially industrial heating systems, were up due to increasing capital investments related to automotive lithium ion batteries by Japanese and Chinese customers.

Operating income decreased by 8.5% year on year to ¥64,635 million due to rising development costs and start up expenses for additional lines needed to boost production capacity, in addition to the impact of strong yen, despite an increase in sales volume of automotive ceramics and industrial process apparatuses.



## [Electronics Business Segment]

Net sales of the Electronics Business Segment increased by 2.0% year on year to ¥103,507 million.

Revenue from ceramic components for semiconductor manufacturing equipment were up year on year as capital investments by semiconductor manufacturers and foundries remained high in response to the trend toward semiconductors shrinking, which buoyed shipments of ceramic components for semiconductor manufacturing equipment. Sales of metals increased only slightly due to the impact of the strong yen, although shipments of beryllium copper products increased mainly for the Chinese industrial equipment market. Revenue from electronic components fell due primarily to declining demand for ceramic packages in the Chinese market. Soshin Electric Co., Ltd., our consolidated subsidiary, suffered a decline in revenue due to sluggish demand for industrial equipment products.

Operating income decreased by 31.6% year on year to ¥5,250 million as the result of decreased sales in electronic components and Soshin Electric Co., Ltd, in addition to the strong yen.

## (2) Summary of Financial Position for the Fiscal Year Ended March 31, 2017

As of March 31, 2017, total assets were increased by 6.7% from the previous fiscal year-end to ¥759,434 million.

Current assets increased by 6.3% from the previous fiscal year-end to ¥438,263 million, mainly reflecting increases in cash and bank deposits, inventories, etc., despite a decrease in notes and accounts receivable trade. Non-current assets were increased by 7.2% from the previous fiscal year-end to ¥321,170 million, mainly due to an increase in tangible assets, despite a decrease in investment securities.

Current liabilities increased by 14.2% from the previous fiscal year-end to ¥128,439 million. This was mainly due to increases in income taxes payable and accounts payable others, despite a decrease in current portion of long-term borrowings. Long-term liabilities increased by 12.1% from the previous fiscal year-end to ¥203,401 million, mainly due to an increase in long-term borrowings.

Total net assets stood at ¥427,593 million, up 2.3% year on year, due to an increase in retained earnings brought about by profit attributable to owners of parent, which was partly offset by purchase of treasury stock and a decrease in foreign currency translation adjustments.

As a result, the ratio of net worth to total assets as of March 31, 2017 was 54.9% (compared with 57.1% at the previous fiscal year-end), with net worth per share standing at ¥1,295.66, up ¥50.19 from the previous fiscal year-end.

# (3) Summary of Cash Flows for the Fiscal Year Ended March 31, 2017

There was a net increase ¥8,627 million in cash and cash equivalents from the previous fiscal year-end to ¥144,692 million. This reflected ¥80,172 million in net cash provided by operating activities, ¥56,452 million in net cash used in investing activities, and ¥13,013 million in net cash used in financing activities.

# [Cash flows from operating activities]

Net cash provided by operating activities was total ¥80,172 million. This was mainly attributable to posting an income before income taxes and non-controlling interests of ¥57,521 million and depreciation and amortization, despite cash outflows mainly due to increases in income taxes paid and inventories. In comparison with the previous fiscal year, net cash provided by operating activities increased by ¥20,726 million.



## [Cash flows from investing activities]

Net cash used in investing activities was total ¥56,452 million. This was mainly due to purchases of property, plant and equipment and marketable securities, despite cash inflows due to proceeds from sales and redemption of marketable securities. In comparison with the previous fiscal year, net cash used in investing activities increased by ¥8,679 million.

# [Cash flows from financing activities]

Net cash used in financing activities was total ¥13,013 million. This was mainly due to repayment of long-term borrowings, purchase of treasury stock and cash dividends paid, despite cash inflows due to proceeds from long-term borrowings. In comparison with the previous fiscal year, net cash used in financing activities increased by ¥12,639 million.

#### (4) Forecast for the Next Fiscal Years

With regard to the outlook for the future economy, while improving employment and income figures are expected to keep the economy on a gradual recovery track, it is expected that there will be a risk of the economy taking a downturn due to factors such as the economic outlook in China and other emerging countries, and the appreciation of the yen.

Under such circumstances, NGK expects a year-on-year sales increase due to growing demand for automotive ceramics and ceramic components for semiconductor manufacturing equipment. In terms of earnings, although depreciation and development costs will increase as a result of a boost in production inputs to meet growing demand, earnings are also expected to increase year on year due to enhanced productivity and other factors.

With regard to the forecast for consolidated financial results for the fiscal year ending March 31, 2018, NGK aims to achieve net sales of ¥420.0 billion (up 4.7% year on year), operating income at ¥67.0 billion (up 6.0%), ordinary income at ¥68.0 billion (up 5.3%), and profit attributable to owners of parent company at ¥45.0 billion (up 23.7%), assuming that the yen trades at ¥105 to the dollar and ¥115 to the euro.

# (5) Basic Policy for Profit Sharing and Dividends for the Current and Next Fiscal Years

NGK views the return of profits to shareholders as one of its most important management policies.

As a basic policy, we strive for shareholder-oriented management that emphasizes return on equity (ROE), and distribute the benefits of successful management with a medium-term target consolidated payout ratio of approximately 30% after consideration of a comprehensive range of factors, including business performance and financial position, and future business development.

NGK plans to pay a year-end dividend of ¥20 per share for the fiscal year ended March 31, 2017. This and the interim dividend of ¥20, which has already been paid, will bring the total annual dividend per share to ¥40.

Taking forecast of increases both in sales and earnings into consideration, NGK expects to raise both of the interim and the fiscal year-end dividend per share by ¥1 to ¥21 respectively for fiscal year ending March 31, 2018. The total annual dividend per share will result in ¥42.

Meanwhile, NGK plans to utilize retained funds primarily to extend its existing core business and capital investments in new business projects, with a view to enhancing its corporate value.



# 2. Management Policies

## (1) Basic Management Policies of the Company

The NGK Group's corporate mission is to provide value to its customers, shareholders, employees-as well as society as a whole-at all times. Through efforts firmly grounded in its unique ceramics technologies, the NGK Group is active in its "Triple-E" primary business domains of energy, ecology, and electronics.

The NGK Group's fundamental policies for fulfilling its corporate mission are outlined below.

First, through selective concentration of resources and investment, the NGK Group will establish new technologies surpassing those of its competitors, to create new businesses and new products that will secure the top positions in their respective fields ("Strategic Growth").

Next, the NGK Group will seek to enhance its corporate value by implementing efficient management that makes the most of each company's capacity for dynamism and individuality, all based on consolidated group business management ("A Highly Efficient Organization").

Furthermore, the NGK Group will disclose information to shareholders and investors in a timely and proactive manner. In addition, while communicating information broadly to society at large through its public relations activities, the NGK Group will bear its social responsibilities in mind, contributing to society through means such as providing support for foreign-exchange students ("Being a Good Corporate Citizen").

#### (2) Targeted Management Indicators

The NGK Group seeks to apply a brand of management that focuses on its shareholders, with return on equity (ROE) as the key management indicator. While focusing on an ROE level of 10% or more from the medium- to long-term perspective through efficient investment of business resources to expand core current businesses, launch new businesses, and in other ways improve its earning capacity, the NGK Group will seek to achieve further improvements in capital efficiency.

## (3) Capital Policy

The NGK Group implements its capital policy from the perspective of contributing to sustained enhancement of its corporate value based on communication with its shareholders and investors.

The NGK Group will work to realize both financial soundness and securing of profitability that surpasses capital cost, while actively returning profits to shareholders from the medium- to long-term perspective. With ROE, dividend payout ratio, dividend on equity ratio, etc. as important indicators, the NGK Group will aim to maintain profit margin, capital turnover, and financial leverage at sound levels in accordance with business strategies.

# (4) Medium- to Long-Term Management Strategies and Issues to Be Addressed

Business opportunities are expected to grow in the NGK Group's business domains of energy, ecology, and electronics backed by public needs and technological innovations. That is why over the next three years the NGK Group plans to make capital investment of ¥300 billion in order to increase production of automotive ceramics and ceramic components for semiconductor manufacturing equipment, as well as mass production of other new products. In fiscal 2017, the NGK Group will focus on building the foundations for future growth and launching new businesses certainly as key priorities, while working on the following initiatives.

1) Enhancing the competitiveness of existing businesses: New/reformed manufacturing structures

The NGK Group is working to improve product value based on advanced technologies and enhance productivity through innovative manufacturing processes. Under its new/reformed manufacturing structures, the NGK Group also focuses on improving the utilization efficiency of existing equipment, and set priorities for making new



investments that will yield results.

Along with promoting the development of automotive ceramics, the NGK Group aims to achieve sustainable growth in our businesses by steadily expanding our cutting edge production lines overseas and thereby building a highly efficient global production system in response to the reinforcement of exhaust gas regulations in various countries and globally increased demand due to the growing sales of automobiles. The NGK Group will carry out stable operation of its second plant in Poland as it goes into full production (silicon carbide (SiC) diesel particulate filters), as well as its Ishikawa Plant (NOx sensors), while moving ahead steadily with the launch of a plant in Thailand (HONEYCERAM). While demand for ceramic components for semiconductor manufacturing equipment is growing as semiconductors become increasingly shrinking, technical requirements are getting more severe. The NGK Group will strive to develop high-performance products and establish innovative manufacturing methods, while making investments steadily to boost production capacity with the aim of improving its competitive advantage.

Meanwhile, the NGK Group is working on restructuring its insulator business to make it profitable even under low operation. In regard to NAS® batteries, the NGK Group strives to create demand by planning to enter the storage battery market overseas by leveraging demonstration project, in addition to focusing on securing orders for system installation in Japan.

# 2) Creating new products and new businesses: From "2017 Challenge 30" to "Keep up 30"

The NGK Group has established the company-wide goal of "2017 Challenge 30" to raise the ratio of sales from new products to 30% by fiscal year 2017, and is working on creating new products and businesses. This goal is expected to be accomplished. The NGK Group will continue to work on keeping the sales ratio of new products at 30% or more under the goal of "Keep up 30" next fiscal year and onward.

As part of its efforts to develop new products, the NGK Group launched the Optical Component Project in April 2017 with the aim to accelerate commercialization of micro-lens for ultraviolet LED and gallium nitride (GaN) wafer, which are being developed for LED, laser, and other optoelectronic applications. Along with the Ceramic Battery Project, which was formed last fiscal year, the Corporate Manufacturing Engineering, Corporate R&D, Business Divisions, and the Headquarters will work together on developing products and mass-production equipment, while expanding its customer base, in order to facilitate the launch of new businesses.

The NGK Group will also strengthen its ability to offer solutions to customers and promote search activities capturing precise needs, in order to continually create new products.

# 3) Enhancing global management

In 20 countries outside of Japan, the NGK Group operates 46 affiliates, of which 23 engage in manufacturing. As the NGK Group increasingly expands its operations overseas, it has been promoting the creation of an environment in which all members of the NGK Group can act in accordance with a fair set of values and evaluation criteria of an international level in an effort to enhance transparency and autonomy of management. Regarding environmental management, the NGK Group will take the initiative to reduce its environmental impact at all its business bases and throughout all processes to help preservation of global environment. Working under the Fourth Five-Year Environmental Action Plan, the NGK Group will incorporate activities to reduce its environmental impact into new/reformed manufacturing structures with initiatives to cut CO2 and waste emissions across its operations worldwide. In addition, the NGK Group aims to increase sales of products that contribute to environmental protection, such as products for purifying automotive exhaust. Further, the NGK Group will also strengthen efforts to conserve biodiversity, manage water resource risks, and streamline water usage, in response to increasing demands from society.



Working to prevent the recurrence of past violations of competition laws, the NGK Group has established an internal organization that implements Competition Law Compliance Program in accordance with international standards. The organization works to ensure that directors and employees of the NGK Group throughout the world comply with laws and regulations by providing the senior management's messages on an ongoing basis and through the use of the Competition Law Compliance Handbook, which has been published in multiple languages, addressing the laws of individual countries. The NGK Group has also established a whistle-blowing system, the "Hotline" to further strengthen the compliance system. Designed to prevent wrongdoing and violations of competition laws, the Foreign Corrupt Practices Act, and other related laws, the "Hotline" enables the NGK Group's senior management and employees to report directly to the Business Ethics Committee through an outside legal counsel.

The NGK Group is implementing activities designed to upgrade the cooperate Headquarters' functions that support its global operations. While honing its expertise through these activities, the Headquarters works closely with each business base to further enhance its ability to adapt to changes in the operating environment.

# 4) Human resource development and work style reforms

Aiming to equip young and mid-career member with the skills needed to take the lead in helping the company grow, the NGK Group has revised its personnel system for general employees them to give general employees opportunities to voluntarily advance to a higher level job or take on greater responsibilities. At the same time, the NGK Group has set the retirement age at 65 to enable expert employees with years of experience, high skill levels, and a variety of expertise to maximize their potential and provides employees with job security after they reach the age of 60. The NGK Group also plans to enhance working arrangements for employees who must either provide home health care for family members or have serious health conditions. In addition to these initiatives, the NGK Group has implemented measures aimed at nurturing a culture that enables female employees to realize their full potential in a rewarding working environment where they can achieve personal growth.

As the number of employees grows in step with the expansion of its operations, all of us at the NGK Group will work on the underlying elements of its operations—"Safety", "Quality", "the Environment" and "CSR"—while remaining dedicated to building a foundation for the future and taking its businesses to new heights.

Through the implementation of the above initiatives in order to further strengthen the operating foundations, the NGK Group will continue to pursue sustainable growth and the realization of higher corporate value as it operates its businesses by placing importance on capital efficiency and shareholders.

# 3. Basic Policies Concerning Selection of Accounting Standards

The NGK Group applies Japanese GAAP, on the other hand, the NGK Group has already unified its accounting standards for revenue recognition, accounting period, depreciation and amortization methods, etc. to standards which are same as those of IFRS, in order to make a financial report more appropriate.



# 4. Consolidated Financial Statements and Notes Thereto

# (1) Consolidated Balance Sheet

		, ,
	As of March 31, 2017	As of March 31, 2016
Assets		
Current assets		
Cash and bank deposits	119,145	97,481
Notes and accounts receivable trade	92,181	102,575
Securities	71,659	72,503
Inventories	<b>%1 119,081</b>	<b>*</b> 1 108,945
Deferred tax assets	19,691	16,305
Other	17,371	15,348
Allowance for doubtful accounts	(867)	(826)
Total current assets	438,263	412,333
Non-current assets		
Tangible assets		
Buildings and structures	66,293	62,252
Machinery and vehicles	97,018	86,606
Tools and equipment	6,063	6,201
Land	27,003	22,697
Construction in progress	32,728	27,236
Total tangible assets	229,107	204,993
Intangible assets		
Software	2,224	1,763
Other	737	1,256
Total intangible assets	2,962	3,019
Investments and other assets		
Investment securities	72,526	78,675
Deferred tax assets	6,545	4,353
Net defined benefit asset	6,924	5,251
Other	3,253	3,444
Allowance for doubtful accounts	(148)	(174)
Total investments and other assets	89,101	91,550
Total non-current assets	321,170	299,563
Total assets	759,434	711,897
-		



	As of March 31, 2017	As of March 31, 2016
Liabilities		
Current liabilities		
Notes and accounts payable trade	38,898	36,052
Short-term borrowings	6,016	4,549
Current portion of long-term borrowings	6,973	20,242
Accounts payable others	21,834	13,141
Accrued expenses	14,895	14,759
Income taxes payable	21,056	7,137
Provision for NAS battery safety measures	3,650	5,405
Provision for loss related to competition law	9,167	4,307
Other	5,946	6,865
Total current liabilities	128,439	112,463
Long-term liabilities		
Long-term borrowings	161,160	139,180
Deferred tax liabilities	15,200	13,766
Provision for product warranties	1,654	1,840
Net defined benefit liability	20,926	21,418
Other	4,459	5,254
Total long-term liabilities	203,401	181,461
Total liabilities	331,841	293,924
Net assets		
Shareholders' equity		
Common stock	69,849	69,849
Capital surplus	72,055	72,092
Retained earnings	289,996	266,580
Treasury stock	(12,407)	(1,363)
Total shareholders' equity	419,492	407,158
Accumulated other comprehensive income		
Unrealized gain on available -for-sale securities	23,458	20,832
Deferred loss on derivatives under hedge accounting	(20)	_
Foreign currency translation adjustments	(15,475)	(5,888)
Defined retirement benefit plans	(10,713)	(15,358)
Total accumulated other comprehensive income	(2,751)	(414)
Stock acquisition rights	898	875
Non-controlling interests	9,953	10,352
Total net assets	427,593	417,972
Total liabilities and net assets	759,434	711,897



# (2) Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

# **Consolidated Statement of Income**

		(Millions of year)
	Year ended March 31, 2017	Year ended March 31, 2016
Net sales	401,266	435,797
Cost of sales	272,434	289,266
Gross profit	128,832	146,531
Selling, general and administrative expenses	×1 65,619	<b>*</b> 1 65,633
Operating income	63,212	80,898
Non-operating income		
Interest income	438	631
Dividend income	1,303	1,514
Equity in earnings of unconsolidated subsidiaries and associated companies	1,791	1,020
Other	1,026	2,493
Total non-operating income	4,559	5,659
Non-operating expenses		
Interest expense	2,051	1,968
Foreign exchange loss	698	2,392
Other	464	698
Total non-operating expense	3,214	5,059
Ordinary income	64,557	81,498
Extraordinary income		
Gain on sales of fixed assets	195	115
Gain on sales of investment securities	5,248	662
Subsidy income	166	294
Total extraordinary income	5,610	1,072
Extraordinary loss		
Loss on sales and disposals of fixed assets	397	421
Impairment loss	4,161	4,451
Provision of reserve for loss related to competition law	6,313	7,113
Loss on abolishment of retirement benefit plan of subsidiaries and associates	<b>*2 1,773</b>	_
Total extraordinary loss	12,646	11,986
Income before income taxes and non controlling interests	57,521	70,584
Income taxes -current	<b>*3 18,012</b>	15,782
Income taxes for prior periods	<b>*4 11,213</b>	_
Income taxes -deferred	(8,067)	1,361
Income taxes - total	21,157	17,144
Profit	36,364	53,440
Profit (loss) attributable to non-controlling interests	(15)	123
Profit attributable to owners of parent	36,379	53,316



# **Consolidated Statement of Comprehensive Income**

		(Millions of year)
	Year ended March 31, 2017	Year ended March 31, 2016
Profit	36,364	53,440
Other comprehensive income		
Unrealized gain (loss) on available-for-sale securities	2,646	(5,587)
Deferred loss on derivatives under hedges accounting	(22)	(7)
Foreign currency translation adjustments	(9,827)	(14,125)
Defined retirement benefits plans	4,436	(8,422)
Share of other comprehensive income (loss) of associates accounted for by using the equity method	381	(389)
Total other comprehensive income	(2,385)	(28,532)
Comprehensive income	33,978	24,907
Comprehensive income attributable to:		
Owners of parent	34,041	25,432
Non-controlling interests	(63)	(524)



# (3) Consolidated Statement of Changes in Equity Year Ended March 31, 2017

	Shareholders' equity					
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholder's equity	
Balance at the beginning of the year	69,849	72,092	266,580	(1,363)	407,158	
Changes during the period						
Cash dividends			(12,963)		(12,963)	
Profit attributable to owners of parent			36,379		36,379	
Purchase of treasury stock				(11,182)	(11,182)	
Disposal of treasury stock		(36)		137	100	
Net changes other than shareholders' equity						
Total changes during the period	_	(36)	23,415	(11,044)	12,334	
Balance at the end of the year	69,849	72,055	289,996	(12,407)	419,492	

		Accumulated	other compr	ehensive incor	ne	Stock	Non-	
	Unrealized gain on available- for-sale securities	Deferred loss on derivatives under hedge accounting	Foreign currency translation adjustments	Defined retirement benefit plans	Total accumulated other comprehensive income	acquisition rights	controlling	Total net assets
Balance at the beginning of the year	20,832		(5,888)	(15,358)	(414)	875	10,352	417,972
Changes during the period								
Cash dividends								(12,963)
Profit attributable to owners of parent								36,379
Purchase of treasury stock								(11,182)
Disposal of treasury stock								100
Net changes other than shareholders' equity	2,625	(20)	(9,586)	4,644	(2,337)	23	(399)	(2,713)
Total changes during the period	2,625	(20)	(9,586)	4,644	(2,337)	23	(399)	9,620
Balance at the end of the year	23,458	(20)	(15,475)	(10,713)	(2,751)	898	9,953	427,593



# Year Ended March 31, 2016

	Shareholders' equity					
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholder's equity	
Balance at the beginning of the year	69,849	72,099	224,040	(1,403)	364,585	
Changes during the period						
Cash dividends			(10,775)		(10,775)	
Profit attributable to owners of parent			53,316		53,316	
Purchase of treasury stock				(62)	(62)	
Disposal of treasury stock		(16)		102	86	
Change in treasury stock of parent arising from transactions with non- controlling shareholders		8			8	
Net changes other than shareholders' equity						
Total changes during the period	_	(7)	42,540	39	42,572	
Balance at the end of the year	69,849	72,092	266,580	(1,363)	407,158	

		Accumulated	other compre	ehensive incor	ne	Stock	Non-	
	Unrealized gain on available- for-sale securities	Deferred loss on derivatives under hedge accounting	Foreign currency translation adjustments	Defined retirement benefit plans	Total accumulated other comprehensive income	acquisition rights	controlling	Total net assets
Balance at the beginning of the year	26,394	7	7,983	(6,915)	27,469	886	11,060	404,001
Changes during the period								
Cash dividends								(10,775)
Profit attributable to owners of parent								53,316
Purchase of treasury stock								(62)
Disposal of treasury stock								86
Change in treasury stock of parent arising from transactions with non- controlling shareholders								8
Net changes other than shareholders' equity	(5,561)	(7)	(13,871)	(8,443)	(27,883)	(10)	(707)	(28,602)
Total changes during the period	(5,561)	(7)	(13,871)	(8,443)	(27,883)	(10)	(707)	13,970
Balance at the end of the year	20,832	_	(5,888)	(15,358)	(414)	875	10,352	417,972



# (4) Consolidated Statement of Cash Flows

	Year ended March 31, 2017	Year ended March 31, 2016
Cash flows from operating activities		
Income before income taxes and non-controlling interests	57,521	70,584
Depreciation and amortization	26,615	27,365
Impairment loss	4,161	4,451
Decrease (increase) in net defined benefit asset	2,319	(2,942)
Increase (decrease) of provision for NAS battery safety measures	(1,755)	(1,936)
Interest and dividend income	(1,742)	(2,145)
Interest expenses	2,051	1,968
Equity in earnings of unconsolidated subsidiaries and associated companies	(1,791)	(1,020)
Gain on sales of investment securities	(5,248)	(662)
Decrease (increase) in notes and accounts receivable - trade	8,623	(16,044)
Decrease (increase) in inventories	(12,192)	(1,633)
Decrease (increase) in other current assets	(2,664)	(359)
Increase (decrease) in notes and accounts payable - trade	3,242	(95)
Increase(decrease) in other current liabilities	9,621	(4,096)
Other, net	1,650	2,999
Increase (decrease) of provision for loss related to competition law	4,860	(4,992)
Reversal of provision due to payment for a fine related to competition law	_	8,007
Sub-total	95,271	79,448
Fine related to competition law paid	_	(8,007)
Interest and dividends received	1,760	2,321
Dividends received from associated	435	434
companies Interest paid	(2,060)	(1,891)
Income taxes paid	(15,234)	(12,860)
Net cash provided by operating activities	80,172	59,445
Cash flows from investing activities		
Purchases of marketable securities	(46,300)	(32,048)
Proceeds from sales and redemption of marketable securities	38,765	32,311
Purchases of property, plant and equipment	(59,361)	(42,693)
Purchases of investment securities	(6)	(11,441)
Proceeds from sales and redemption of investment securities	6,919	10,319
Net decrease (increase) in time deposits	2,786	(1,281)
Payments into restricted deposits	_	(2,376)
Proceeds from withdrawal of restricted deposits	2,141	_
Other, net	(1,398)	(561)
Net cash used in investing activities	(56,452)	(47,772)



	Year ended March 31, 2017	Year ended March 31, 2016
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	1,602	527
Proceeds from long-term borrowings	30,121	16,825
Repayment of long-term borrowings	(19,239)	(6,690)
Purchase of treasury stock	(11,182)	(62)
Cash dividends paid	(12,963)	(10,775)
Other, net	(1,352)	(197)
Net cash used in financing activities	(13,013)	(373)
Foreign currency translation adjustments on cash and cash equivalents	(2,079)	(3,850)
Net increase in cash and cash equivalents	8,627	7,448
Cash and cash equivalents, beginning of the year	136,065	128,616
Cash and cash equivalents, end of the year	144,692	136,065



#### (5) Notes to Consolidated Financial Statements

## (Note on the Assumption as a Going Concern)

Not applicable

## (Significant Items Underlying the Preparation of Consolidated Financial Statements)

Accounting standards

Accounting standards for significant allowances

- Provision for NAS battery safety measures
   In response to the fire involving NGK-manufactured NAS® batteries that occurred in September 2011,
   NGK reserved an allowance as "Provision for NAS battery safety measures" to cover anticipated future expenses on safety measures necessary to expand the NAS battery business.
- Provision for loss related to competition law
   NGK estimated and recorded an allowance for potential losses related to competition law.

## (Changes in Accounting Policy)

Not applicable

## (Additional Information)

(Adoption of "Implementation Guidance on Recoverability of Deferred Tax Assets")

Effective from the fiscal year ended March 31, 2017, NGK adopted the "Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26, March 28, 2016).

(Action filed for the revocation of correction

and correction for the subsequent fiscal years based on transfer pricing taxation)

With respect to transactions between NGK and its Polish subsidiary from the fiscal year ended March 31, 2007 through the fiscal year ended March 31, 2010, NGK received a correction based on transfer pricing taxation issued by the Nagoya Regional Taxation Bureau in March 2012. While NGK made a payment of approximately ¥6.2 billion in tax penalties including local taxes, it filed a compliant. NGK later requested the Nagoya National Tax Tribunal to carry out an administrative review, and on June 24, 2016, received a written verdict, which partially rescinded the correction. However, it went only so far as to refund approximately ¥0.1 billion of corporation taxes and local taxes, etc. Believing that cancellation should be made in the full amount, NGK filed an action for revocation of the correction with the Tokyo District Court on December 20, 2016.

While NGK believes that it could still take a considerable amount of time before judgment is passed on the claim, NGK expects to be subject to a similar correction based on transfer pricing taxation for the fiscal year ended March 31, 2011 through the fiscal year ended March 31, 2015. Accordingly, based on the premise that NGK would be subject to the said correction for the fiscal year ended March 31, 2016 and the fiscal year ended March 31, 2017 as well, estimated tax amounts were added and factored into the financial statements for the fiscal year ended March 31, 2017.



# (Consolidated Balance Sheet)

#### ¾1. The breakdown of inventories is as follows:

	As of March 31, 2017	As of March 31, 2016
Finished products	46,762 million yen	46,265 million yen
Cost of contracts in progress	588	337
Work in process	13,169	11,872
Raw materials and supplies	58,561	50,470

# 2. Contingent liabilities

The NGK Group is subject to an international investigation on the situation of competition.

Since the receiving of a subpoena by a U.S. subsidiary of NGK from the U.S. Department of Justice (DOJ) in 2011, NGK has cooperated in the investigation concerning ceramic substrates for catalytic converters including establishing the Independent Committee in 2012. In September, 2015, NGK entered into a Plea Agreement with DOJ, agreeing to pay a fine of US\$65.3 million based on charges that it violated U.S. laws including the antitrust law in connection with some transactions for ceramic substrates for catalytic converters, and paid the total amount in November 2015. We have entered into negotiations for compensation for damages with the relevant customers. In addition to some customers requiring monetary compensation, civil lawsuits (class action) have also been filed.

In consideration of such progresses, the NGK Group made an estimate of potential losses, and recognized the estimated amount as of the end of fiscal year ended March 31, 2017, as "provision for loss related to competition law," however, additional losses may arise with the emergence of new facts. Overall details of the investigation and negotiations are not disclosed because they may put the NGK Group at a disadvantage.

# (Consolidated Statement of Income)

# X1. The major items and their amounts of selling, general and administrative expenses are as follows:

	Year ended March 31, 2017	Year ended March 31, 2016
Salaries, wages, and bonuses	19,096 million yen	18,804 million yen
Freight outward	6,517	7,491
Research and development expenses	7,341	6,429

# X2. Loss on abolishment of retirement benefit plan of subsidiaries and associates

This loss relates to the partial abolishment of retirement benefit plans at our consolidated subsidiary in the U.S.

#### 3. Income taxes - current

The amount includes estimated tax for the fiscal year ended March 31, 2017, which was recognized because NGK has become subject to a correction based on transfer pricing taxation after a tax investigation was carried out in connection with transactions between NGK and its Polish subsidiary.



# ¾4. Income taxes for prior periods

Because NGK has become subject to a correction based on transfer pricing taxation after a tax investigation was carried out in connection with transactions between NGK and its Polish subsidiary, estimated tax amounts to be paid for fiscal years up until March 31, 2016, including fiscal years subsequent to those for which NGK is subject to a correction, were recognized under "income taxes for prior periods".

# (Segment Information)

#### 1. Overview of business segments

The NGK Group's business segments are components of the NGK Group for which separate financial information is available and the Board of Directors conducts a regular review in order to determine the allocation of management resources and to assess performance.

The NGK Group plans comprehensive domestic and overseas strategies and conducts business activities under the system of three business divisions, namely Power Business Division, Ceramics Products Business Division and Electronics Business Division; therefore, Power, Ceramics and Electronics constitute the business segments. Listed below are main products of the respective business 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	Automotive ceramics for exhaust gas purification, corrosion-resistant ceramic apparatuses, for chemical industries, gas analyzer, industrial heating systems, refractory products and radioactive waste treatment systems
Electronics	Ceramic component for semiconductor manufacturing equipment, ceramic components for electronics, beryllium copper products, and molds

2. Methods of calculating sales, income or loss, assets, liabilities, and other items by business segment

The accounting methods applied to the reported business segments are generally the same as those listed in "Significant items underlying the preparation of consolidated financial statements" in the NGK's most recent securities report "Yuka Shoken Hokokusho" filed on June 29, 2016.

Business segment income is based on operating income. Intersegment sales is based on market prices.



3. Sales, income or loss, assets, liabilities, and other items by business segment

Year ended March 31, 2017

(Millions of yen)

		Business s	segment	Elimination	Consolidated	
	Power	Ceramics	Electronics	Total	or Adjustment	Consolidated
Sales						
Sales to customers	52,799	244,959	103,507	401,266	_	401,266
Intersegment sales	25	262	_	288	(288)	_
Total sales	52,825	245,221	103,507	401,554	(288)	401,266
Operating income (loss)	(6,622)	64,635	5,250	63,263	(50)	63,212
Total assets	86,144	362,734	105,414	554,293	205,140	759,434
Other						
Depreciation	2,554	18,003	6,057	26,615	_	26,615
Impairment loss	2,906	_	1,254	4,161	_	4,161
Capital expenditures	4,293	44,741	9,389	58,424	1,676	60,101

(Notes)

- . Elimination or adjustment of operating income (loss) is an adjustment of intersegment transactions.
- Corporate assets within total assets that are included in elimination or adjustment are ¥241,063 million, consisting
  mainly of surplus funds managed by NGK (cash and securities), long-term investment funds (investment securities)
  and assets related to administrative divisions.
- 3. Elimination or adjustment of capital expenditures is an increase at head office divisions.

# Year ended March 31, 2016

(Millions of yen)

		Business s	segment	Elimination	Consolidated		
	Power	Ceramics	Electronics	Total	or Adjustment	Consolidated	
Sales							
Sales to customers	83,505	250,861	101,431	435,797	_	435,797	
Intersegment sales	41	262	_	304	(304)	_	
Total sales	83,547	251,123	101,431	436,102	(304)	435,797	
Operating income	2,577	70,650	7,670	80,898	-	80,898	
Total assets	96,877	324,123	104,203	525,204	186,693	711,897	
Other							
Depreciation	3,340	18,609	5,415	27,365	_	27,365	
Impairment loss	2,659	1,115	657	4,432	19	4,451	
Capital expenditures	3,349	26,525	12,793	42,668	2,769	45,437	

(Notes)

- Corporate assets within total assets that are included in elimination or adjustment are ¥228,414 million, consisting
  mainly of surplus funds managed by NGK (cash and securities), long-term investment funds (investment securities)
  and assets related to administrative divisions.
- 2. Elimination or adjustment of capital expenditures is an increase at head office divisions.



# [Related information]

Year ended March 31, 2017 Information about geographical areas

Sales (Millions of yen)

Sales to Japan		No	North America		Europe			Asia			Others	Total
customers	•	Total	USA	Others	Total	Germany	Others	Total	China	Others		
	113,130	93,027	86,418	6,609	87,270	41,148	46,121	96,318	44,900	51,417	11,519	401,266

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

Year ended March 31, 2016 Information about geographical areas

Sales (Millions of yen)

90	Sales to Japan North An		orth Ameri	ca	Europe			Asia			Others	Total	
	stomers	- 1	Total	USA	Others	Total	Germany	Others	Total	China	Others		
		126,711	94,400	87,959	6,440	98,954	46,569	52,384	92,194	34,090	58,103	23,537	435,797

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



# (Per Share Information)

	Year ended March 31, 2017	Year ended March 31, 2016
Net worth per share	1,295.66 yen	1,245.47 yen
Profit per share	112.71 yen	163.28 yen
Diluted profit per share	112.51 yen	162.97 yen

(Note) The basis for calculation of profit per share and diluted profit per share is as follows:

	Year ended March 31, 2017	Year ended March 31, 2016
Profit per share		
Profit attributable to owners of parent (Millions of yen)	36,379	53,316
Amount not attributable to common shareholders (Millions of yen)	_	_
Profit on common stock (Millions of yen)	36,379	53,316
Average number of shares of common stock over the period (Thousand shares)	322,760	326,540
Diluted profit per share		
Adjustment to profit (Millions of yen)	_	-
Increase in common shares (Thousand shares)	572	608
(Stock options in the form of stock acquisition rights)	(572)	(608)
Summary of potentially dilutive shares not included in the calculation of diluted profit per share due to their anti-dilutive effect	_	-

# (Significant Subsequent Events)

Not applicable