

JXTG Nippon Oil & Energy

# CSR Report 2017





**Tsutomu Sugimori**  
Representative Director  
and President

## The newly formed JXTG Nippon Oil & Energy – generating new value by transforming itself with a spirit of challenge and high aspirations

### Q1 How do you view the recent business environment that led to the business integration?

I believe that the petroleum industry has faced an extremely challenging environment over the past few years. The biggest reason has been the decline in domestic demand, which is projected to fall even further due to changes such as the dwindling birthrate and aging population, the spread of fuel-efficient vehicles, and a shift in energy sources. And while emerging countries in Asia are experiencing steady growth in demand, a series of construction projects involving large-scale, state-of-the-art refineries is expected to further intensify international competition in the years ahead.

The JX Group and the TonenGeneral Group

integrated their businesses in April 2017 to be reborn as JXTG Holdings, Inc. and JXTG Nippon Oil & Energy Corporation in the pursuit of sustainable business development even under this challenging environment.

Over the years, the JX Group and the TonenGeneral Group have shouldered the important responsibility of providing a stable supply of energy in Japan. We seek to grow into one of the most prominent comprehensive energy companies in Asia and meet the needs of the times by integrating our management resources to provide new value to our customers and society at large.

### Q2 Can you explain in concrete terms the new value you hope to provide?

First, it means we will seek to reinforce the stability of our supply system by strengthening our entire supply chain and quickly maximizing integration synergies.

The merger has made it possible for us to boost the efficiency of our core petrochemical business. We will be able to bolster our entire supply chain by consolidating and eliminating some of our refineries and integrating overlapping businesses, as well as by raising efficiency at every stage, including production, supply, and sales. Based on these efforts, JXTG Nippon Oil & Energy will continue to provide a stable supply of energy in Japan. While this initiative may not be completely new, we believe maintaining a stable supply amid changing social circumstances constitutes added value. We will also seek to more aggressively develop our overseas business to grow into a company that is competitive at the international level. This also represents additional value that we hope to provide to our overseas customers and society at large. Meanwhile, we will concentrate on cultivating next-generation businesses to meet the diversifying demand for energy in Japan.

I believe seizing the opportunity of this business

integration to focus on expanding and enhancing our supply of more eco-friendly sources of energy, such as electric power, gas, and hydrogen, will also generate new value.

Moreover, we will carefully develop technology-based businesses that are already showing steady profit. For example, the lubricants business, which generates high-performance products that cater to customer needs, and the high performance materials business, which provides new materials, are already offering new value for society as well as our customers and hold great promise for the future.

In this way, I believe we can deliver new value in a variety of ways, but to do so over the long term we must change the way we work. Our entire organization and each individual employee must embrace transformation to stay abreast of the constant changes taking place in our times. For this reason, we decided to proceed with our transformation through a united Group effort by positioning the Medium-Term Management Plan announced in May 2017 as the “execution plan for a drastic transformation.”

### Q3 What are your views on business transformation?

If I were asked to state the keyword for the newly formed JXTG Nippon Oil & Energy, I would definitely say, “transformation.” We must break away from simply doing things as we have in the past with a strong resolve to be reborn as a completely new enterprise.

At the same time, there must be a shared direction for the transformation sought by this new company, and I believe that the JXTG Group Philosophy and JXTG Group Code of Conduct serve this purpose. (See pages 5 and 6.)

The JXTG Group Philosophy consists of our Mission and Our Five Core Values. The JXTG Group Code of Conduct is the cornerstone for determining how to take action to realize the JXTG Group Philosophy.

To achieve our transformation, each individual employee must first gain a fundamental understanding of the JXTG Group Philosophy and JXTG Group Code of Conduct. Moreover, we must faithfully put them into

practice toward a common direction and continuously take on the challenge of creating a new future. Only then we can bring about the transformation we seek.

Our people are not the only aspect of our organization that requires transformation. The management infrastructure and internal control system that sustain our business must also be drastically transformed.

With respect to our management infrastructure, we are currently introducing an enterprise resource planning (ERP) system. In short, this initiative is intended to raise operational efficiency by establishing and managing a centralized data system to fundamentally change the way we work.

As for our internal control system, we are actively reviewing the efforts initiated by the respective companies before the merger from a new perspective to make sure we incorporate the best aspects for maximum effectiveness. We have begun to develop an operations management system at our refineries and plants to advance our business fundamentals of maintaining safe operations and ensuring stable and efficient production. Areas that were inadequate in our past systems must be thoroughly revised. We are sparing no effort to develop this system as soon as possible.

There is room for improvement in ensuring safe and stable operations, as evidenced by the clearly preventable fire that broke out at our Wakayama refinery in January 2017. This incident resulted in the evacuation of many nearby residents and caused considerable concern and inconvenience for those involved. We are working to make necessary improvements after determining the causes to prevent such an incident from occurring again. We will also deploy these improvements across all our refineries and plants in the interest of rigorous safety management.

Furthermore, to engage in CSR throughout the supply chain, we established the JXTG Energy Group CSR Council, comprising the presidents of 26 “special affiliates” representing subsidiaries and affiliated

companies that are particularly important for managing the business of the Group. We will utilize this council to reflect the opinions of each company in the Group’s overall CSR management.

#### Q4 What are your thoughts on the SDGs\*, which have attracted significant attention in the international community?

The company has grown considerably as a result of the business integration, and operating on a larger scale entails greater social responsibility. I believe we must strive to be a company that engages more deeply with society than in the past.

We already carry out various SDG-related initiatives that are closely connected to our business activities, especially those concerning the environment. While the petroleum products we handle play an essential role in daily life, they also impose a burden on the global environment. As a leading company in the petroleum industry, we must fulfill our responsibilities to society. We will continue our efforts to this end, such as taking measures against global warming, an issue that must be dealt with at the international level, and developing

clean energy.

To instill this awareness throughout the Group and declare our commitment over the long term, we have included respect for human rights, health enhancement, and contribution to the development of civil society in the JXTG Group Code of Conduct.

We will continue to consider ways in which we can contribute to the realization of a sustainable society and fulfill our role conscientiously through the united effort of our directors, officers and employees.

\*SDGs (Sustainable Development Goals)  
The Sustainable Development Goals of the 2030 Agenda for Sustainable Development were adopted by the United Nations in September 2015. They include 17 goals concerning humankind, prosperity, the earth, peace, and partnerships, along with 169 targets. These are global issues, and companies are expected to contribute to achieving the goals.

#### Q5 The Medium-Term Management Plan includes strengthening CSR initiatives. Can you share more information about the new system and its purpose?

In the Medium-Term Management Plan announced in May 2017, we upheld the promotion of CSR management as a means for strengthening our management foundation. To achieve further growth, we must enhance our social value as well as our economic value. For this reason, we will steadily advance our initiatives related to CSR management as well as the environment, society, and governance (ESG).

Specifically, we have categorized and integrated the 14 items taken up in the JXTG Group Code of Conduct into eight priority fields for CSR activities and are creating a mechanism for conducting Plan, Do,

Check, Act (PDCA) cycles for each field. We established a CSR Management Council to determine CSR policies for the JXTG Nippon Oil & Energy Group and a CSR General Managers Committee as an advisory organ comprising the heads of all departments at the head office. In addition, we appointed a CSR promotion manager in each department at the head office as well as at each refinery, plant, and branch office to lead the promotion of CSR measures at each site. With such a solid organization, we will promote Group-wide CSR management as a key initiative that involves all divisions.

#### Q6 You have included fostering human resources as a means for strengthening the business foundation under the Medium-Term Management Plan Basic Policy. What do you expect from employees and human resource development at JXTG Nippon Oil & Energy?

In a word, the ideal employee is one who is able to carry out the transformation. We want to nurture individuals who are sensitive to social needs and changes in the business environment, can see things from a broad perspective and take all aspects of a situation into account, can independently determine what should be done, and take action. I believe that employees also need a global outlook for engaging in further overseas business development. To this end, we must address several issues at the organizational level to cultivate and retain such excellent personnel and enable them to realize their potential.

The first is to encourage diversity. It is extremely important to provide a working environment in which everyone can demonstrate their capabilities to the fullest, regardless of attributes such as gender, age, or nationality, or personal circumstances such as childbirth, childcare, or caring for an elderly family member.

Other important issues are the creation of an open organization and a commitment to fair performance assessments. The key to these aspects, such as corporate culture and environment, lies in the attitudes of directors, including myself, officers, and each

individual employee, rather than in any corporate system. I am a firm believer in dialogue. Without dialogue, there can be no relationships of trust and no new discoveries. Since becoming president, I have endeavored to engage in frank exchanges of views with individuals in various positions and circumstances, both inside and outside the company. I have also asked employees to participate in meetings to exchange views and some of the measures suggested in these meetings have been promptly implemented throughout the company. I hope employees also hold such beliefs and attitudes for nurturing a new corporate culture so we can develop and retain excellent human resources.



#### Q7 To close this interview, what message would you like to share with our many stakeholders, including customers?

The newly formed JXTG Nippon Oil & Energy will take on the challenges of transformation and the creation of new value to grow into a comprehensive energy company engaged in a global business.

While we are currently uniting the Group’s efforts to attain our goal of increasing profit to 100 billion yen within the next three years, we also aim to gain recognition as a company that faces up to its social responsibilities and with integrity addresses issues

confronting the international community.

The business integration has enabled us to reach a greater number of stakeholders than in the past. JXTG Nippon Oil & Energy is striving to be the kind of company that can respond with integrity to the needs and expectations not only of our customers and shareholders, but also of society at large.

We would greatly appreciate your frank feedback to this CSR Report 2017.

# JXTG Group Philosophy

## Mission

Harnessing the Earth's power for the common good and for the day-to-day life of each individual, we will contribute to the development of our communities and help to ensure a vibrant future through creation and innovation in energy, resources, and materials.

## Our Five Core Values

### As a member of the community

#### High ethical standards

Based on our core principles of integrity and fairness, we conduct all of our business activities in accordance with our high ethical standards.

#### Health, safety, and environment

We give the highest priority to health, safety and environmental initiatives, which are vital to the well-being of all living things.

### Supporting day-to-day life

#### Focus on customers

We strive to meet the expectations and evolving needs of our valued customers and of society as a whole through the stable provision of products and services while creating new value as only we can.

### For a vibrant future

#### Taking on challenges

Taking changes in stride, we rise to the challenge of creating new value while seeking innovative solutions for today and tomorrow.

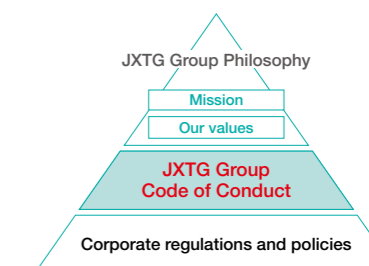
#### Moving forward

Looking to the future, we continue to grow, both as individuals and as a company, through the personal and professional development of each and every employee.

# JXTG Group Code of Conduct

## 1. Positioning of the JXTG Group Code of Conduct

This JXTG Group Code of Conduct (hereinafter referred to as the "Code of Conduct") is a set of standards that we, as the JXTG Group directors, officers and employees, apply in order to realize the JXTG Group Philosophy through our business activities and fulfill our social responsibilities. The Code of Conduct, as the foundation of all of our corporate regulations, shall serve as the cornerstone for making judgments in all of our business dealings.



## 2. Important aspects in living up to the Code of Conduct

We, as the JXTG Group directors, officers and employees, shall comply with this Code of Conduct when performing our duties. When violations of this Code of Conduct are found, they shall not be overlooked, and each one of us must do what we can to deal with such issues. Executives and supervisors shall fulfill their obligations according to their responsibilities so that all business operations are carried out in accordance with this Code of Conduct.

Ask yourself the following questions if you are in doubt as to what is the correct course of action in performing your day-to-day business operations.

- Is your conduct and the conduct of others around you in compliance with laws and regulations, the Code of Conduct, and high ethical standards?
- Can you unreservedly give an account of your conduct to the people around you, including your family and friends?
- Can you respond with confidence to questions about your conduct from third parties or the authorities, or reports by the media?

## 3. Applicable scope of the Code of Conduct

In principle, this Code of Conduct is applicable to all directors, officers and employees who work at JXTG Holdings, Inc. and its subsidiaries. We also encourage companies that are part of our value chain to comply with this Code of Conduct. These companies include, but are not limited to, suppliers of raw materials, logistics companies, construction companies, and sales companies.

## 4. Relation to national and local laws

We, as the JXTG Group directors, officers and employees, respect this Code of Conduct, in addition to local laws and customs. National and local laws will take precedence over the Code of Conduct when the provisions of such laws are more rigorous than the Code of Conduct.

## JXTG Group Code of Conduct

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1. Compliance</li> <li>2. Safety and security</li> <li>3. Environmental conservation</li> <li>4. Health enhancement</li> <li>5. Respect for human rights</li> <li>6. Product and service quality</li> <li>7. Equitable and fair transactions</li> <li>8. Appropriate relationships with governments and public administrations</li> </ul> | <ul style="list-style-type: none"> <li>9. Avoidance of conflicts of interest</li> <li>10. Corporate asset protection and management</li> <li>11. Information management and disclosure</li> <li>12. Establishment of a healthy work environment</li> <li>13. Contribution to the development of civil society</li> <li>14. Actions for violations and measures to prevent recurrence</li> </ul> |
|--|---|

The full text of the JXTG Group Code of Conduct is available on our corporate website.

[WEB JXTG Group Code of Conduct \(https://www.hd.jxtg-group.co.jp/english/company/conduct.html\)](https://www.hd.jxtg-group.co.jp/english/company/conduct.html)

# CONTENTS

- 01 **Message from the President**
- 05 **About JXTG Nippon Oil & Energy**
  - 05 JXTG Group Philosophy and JXTG Group Code of Conduct
  - 07 Company Overview and Editorial Policy
  - 08 JXTG Group Medium-Term Management Plan FY2017–FY2019
  - 09 **Feature 1**  
JXTG Nippon Oil & Energy's Value Chain – Helping to Support Society by Ensuring a Stable Supply
  - 11 **Feature 2**  
Taking on the Challenge of Diverse Next-Generation Energy Sources  
Unlocking a New Era as a Comprehensive Energy Company
- 15 **Management System**
  - 16 Corporate Governance
  - 18 Internal Control System
  - 20 Compliance
  - 23 Risk Management
- 27 **CSR Management**
  - 28 CSR Management
- 33 **Social Report**
  - 34 Safety Initiatives
  - 39 Engagement with Customers
  - 45 Engagement with Employees
  - 54 Engagement with Business Partners
  - 57 Engagement with Civil Society
- 73 **Environmental Report**
  - 74 Environmental Management
  - 77 Overview of Our Environmental Impacts
  - 79 Global Warming Prevention Measures
  - 81 Biodiversity Preservation
  - 83 Activities for Reducing Our Environmental Impacts
  - 90 Developing and Supplying Environmentally-Friendly Products and Services
  - 91 Environmental Measures at Our Refineries, Plants and Other Sites
- 96 **Comparative Table with GRI Guidelines**

## Company Overview (as of April 1, 2017)

<b>Company Name</b>	JXTG Nippon Oil & Energy Corporation
<b>Establishment</b>	May 10, 1888
<b>Capital</b>	30 billion yen (100% investment of JXTG Holdings, Inc.)
<b>Representative</b>	Tsutomu Sugimori, Representative Director and President
<b>Head Office</b>	1-2 Otemachi 1-chome, Chiyoda-ku, Tokyo 100-8162, Japan
<b>Number of Employees</b>	Non-consolidated: 9,137
<b>Business Activities</b>	<ul style="list-style-type: none"> <li>•Refining and marketing of petroleum products, including gasoline, heating oil and lubricants</li> <li>•Import and sale of gas and coal</li> <li>•Manufacture and marketing of petrochemical products</li> <li>•Supply of electricity and hydrogen</li> </ul>
<b>Head Office</b>	Otemachi/Shinagawa
<b>Research Laboratory</b>	Central Technical Research Laboratory
<b>Refineries</b>	Sendai Refinery, Chiba Refinery, Kawasaki Refinery, Negishi Refinery, Sakai Refinery, Wakayama Refinery, Mizushima Refinery, Marifu Refinery, Oita Refinery, Kashima Refinery (Kashima Oil Co., Ltd.), Osaka Refinery (Osaka International Refining Co., Ltd.)
<b>Plants</b>	Muroran Plant, Kawasaki Plant, Yokohama Plant, Chita Plant, TCC Kawasaki Plant (Tonen Chemical Corporation)
<b>Branch Offices</b>	Hokkaido Branch Office, Tohoku Branch Office, Kanto Branch Office 1, Kanto Branch Office 2, Kanto Branch Office 3, Tokyo Branch Office, Chubu Branch Office, Osaka Branch Office 1, Osaka Branch Office 2, Chugoku Branch Office, Kyushu Branch Office, Okinawa Branch Office

## Financial Indicators (Japanese Accounting Standards) (Million yen)

Former JX Nippon Oil & Energy Corporation (non-consolidated)		
	Net Sales	Ordinary Income
Year ended March 2017	6,022,355	179,493

Former Tonen General Sekiyu K.K. (non-consolidated)		
	Net Sales	Ordinary Income
Year ended December 2016	2,013,004	62,217

## JXTG Group Medium-Term Management Plan FY2017-FY2019

The JXTG Group established its "Medium-Term Management Plan FY2017–FY2019" under the JXTG Group Philosophy as part of its efforts to become one of the most prominent and internationally competitive comprehensive energy, resources and materials company groups in Asia. JXTG Nippon Oil & Energy will take action based on the Medium-Term Management Plan to contribute to the development of society and the economy and the creation of a sustainable and vigorous future.

### Position of the Medium-Term Management Plan FY2017-FY2019

#### Basic Policy

The JXTG Group will promote "management that focuses on cash flows and capital efficiency" in order to establish a profit foundation and financial foundation adaptable to the changing business environment.

- Enhancing the profitability of core businesses
- Focusing on cash flows and capital efficiency
- Strengthening the business foundation (e.g., development of management control system, fostering human resources)

### Execution Plan for a Drastic Transformation

#### Management Target (IFRS)

Operating income (excluding inventory impact)	Net D / E Ratio
<b>500 billion yen (FY2019)</b>	<b>0.7 times or lower (capital total basis)</b>
Free cash flow	ROE
<b>500 billion yen (cumulative amount for FY2017–FY2019)</b>	<b>10% or more</b>

Key Factors (FY2017 → FY2019)  
Exchange rate: 110 yen/\$ Crude price: 50 → 60 \$/bbl Copper price: 250 → 270 ¢/lb

## JXTG Nippon Oil & Energy's Business Strategy

A leap forward to become one of the most prominent comprehensive energy companies in Asia through "thorough business transformation" – Taking on the challenges of a drastically changing business environment –

1. Maximizing and realizing at an early date integration synergies; strengthening international competitiveness through thorough streamlining of core businesses
  - Petroleum Refining & Marketing; Petrochemical products business
  - Maximizing and realizing at an early date the integration synergies
  - Establishing an optimal production and supply system based on consolidation and elimination of refineries and plants
  - Optimizing accommodation and delivery of raw materials and selection of crude oil
  - Integrating various sales systems at an early date
  - Strengthening the competitiveness of the Kawasaki plants
  - Maximizing profit by utilizing our market presence in basic petrochemical products
2. Developing and strengthening businesses that will be the mainstays of the future
  - Electricity business
    - Maintaining a solid track record of electricity sales
    - Developing electric power with an eye toward establishing an optimal electric power portfolio
  - Overseas business
    - Capturing demand for petroleum products in the Asia-Pacific region
  - High performance materials business
    - Encouraging growth of existing businesses and promoting new businesses
    - Research and development in the strategic sector
  - Lubricants business
    - Developing and offering high-value products
    - Establishing a highly profitable structure by optimizing manufacturing, procurement and distribution
3. Reinforcing the management control system by improving the business infrastructure
  - Improving and tightening internal control
  - Building an integrated core operation system (ERP system)
  - Reducing cost by optimizing procurement of materials and services, etc.
4. Establishing an efficient administrative division structure

### Editorial Policy

The purpose of the CSR Report 2017 is to provide a clear overview of the JXTG Nippon Oil & Energy Group's approach to corporate social responsibility (CSR) and related initiatives. The special features section is intended to inform stakeholders about the value chain and next-generation energy sources, which are important CSR topics for the newly integrated JXTG Nippon Oil & Energy. In addition, specific details pertaining to the company's activities can be found in the section explaining JXTG Nippon Oil & Energy's approach to CSR, the Social Report for each stakeholder and the Environmental Report. We endeavor to provide clear, concise, and honest disclosures. Furthermore, to the extent possible, we have unified the standards for reporting on the results of activities conducted by the former JX Nippon Oil & Energy Group and the former TonenGeneral Group in fiscal 2016.

### Scope of the Report

JXTG Nippon Oil & Energy Corporation and its 26 main affiliates (total: 27 companies), including refineries and plants of the company and its affiliates

### Timeframe

April 2016 to March 2017  
However, some activities and plans that took place prior to March 2016 or after April 2017 have also been included.

### Publication Date

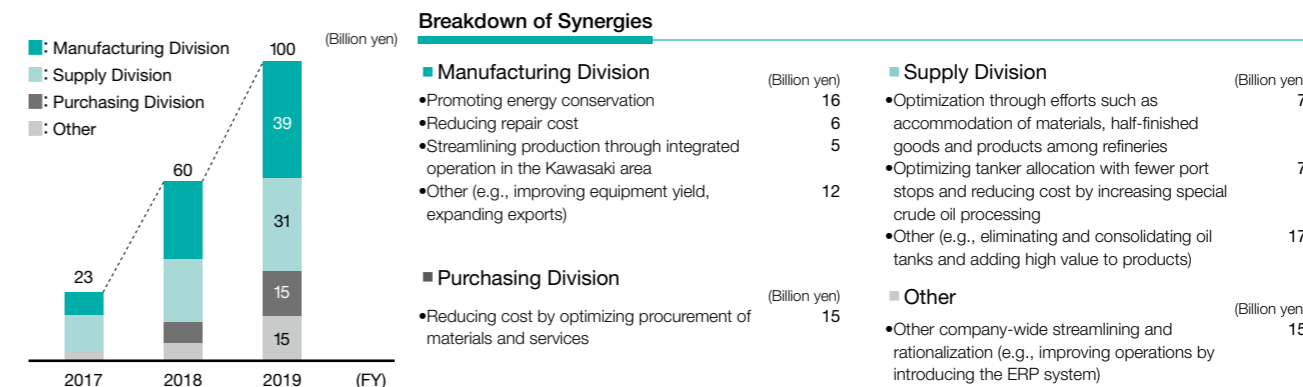
November 2017 (Tentative date of next publication: autumn 2018)  
Referenced guidelines and standard

- Environmental Reporting Guidelines (2012) of the Japanese Ministry of the Environment
- GRI Sustainability Reporting Guidelines, Version 4
- ISO 26000

### Inquiries

Corporate Social Responsibility Group, General Administration Department, JXTG Nippon Oil & Energy Corporation  
Phone: (81) 3-6551-7159 Fax: (81) 3-6213-3456

## Growth of Synergy Effect Value over the Next Three Years



# JXTG Nippon Oil & Energy's Value Chain – Helping to Support Society by Ensuring a Stable Supply



Resource Procurement

## Crude Oil Procurement Sources

15 countries

## Crude Oil Imports

JX\*1 71.77 million kl + TG\*2 32.08 million kl

103.85 million kl

Japan depends on imports to cover all of its crude oil needs, of which over 80% is purchased from countries in the Middle East, with top priority on initiatives for securing a stable system for procuring crude oil. Through its business integration, JXTG Nippon Oil & Energy is seeking to optimize its options for raw materials by diversifying and expanding Japan's global supply base for crude oil to 15 countries, including Russia and countries in West Africa and North, Central and South America. We maintain offices in oil-producing countries in the Middle East, which are particularly important, in an effort to build relationships of trust through ongoing dialogue and exchange, while also assisting these countries in developing their human resources and offering technical assistance.

We utilize an economical, flexible system to procure crude oil from around the world, using long-term contracts to ensure a stable supply as well as spot contracts (contracts for individual shipments).

\*1 JX Nippon Oil & Energy Group  
\*2 TonenGeneral Group



Transport/Storage

## Number of Owned or Chartered VLCCs

JX 23 + TG 9

32 vessels  
(as of April 1, 2017)

JXTG Nippon Oil & Energy transports crude oil by sea using its own fleet of thirty-two 300,000 deadweight-ton VLCCs (Very Large Crude Carriers) and ten 100,000 deadweight-ton ocean-going tankers. We place top priority on safety and pay close attention to local weather conditions and social circumstances to select the best route for delivering crude oil to refineries across Japan. Going forward, we will seek to optimize tanker allocation with fewer port stops as one of the synergies generated by the integration.

Japanese law stipulates that in preparation for unforeseen circumstances, the private sector must maintain reserves of crude oil to cover approximately 70 days of consumption, equivalent to half the volume of joint reserves stored by oil producing countries and about 90 days' worth of imports. JXTG Nippon Oil & Energy is responsible for approximately 50%\* of private reserves, and will fulfill its mission of ensuring a stable supply of crude oil as a contingency resource.

\*As of the period from April to August 2017

## Number of Refineries and Plants

JX 11 locations + TG 5 locations

16 locations



Refining/Production

## Crude Oil Processing Capacity

JX 1,303 thousand barrels/day + TG 627 thousand barrels/day

1,930 thousand barrels/day  
(as of April 1, 2017)

JXTG Nippon Oil & Energy refines crude oil at its 16 refineries and plants across Japan to generate value in the form of various petroleum products such as gasoline, LPG, naphtha, jet fuel, kerosene, and diesel, as well as petrochemical products. From here on we will seek to maximize the synergies of the business integration as soon as possible by mutually supplying raw materials, intermediate products, and utilities among refineries while establishing an optimal production and supply system with an eye to consolidation and elimination of our refineries and plants. Particularly with respect to the Kawasaki area, where the Group's resources are concentrated, we will seek to streamline production through integrated operation by connecting the sites with a pipeline for the mutual supply of raw materials for petrochemicals and energy used at the plants. In addition to integrating our operations for more efficient production, we will focus on basic chemical products, which have gained a greater market presence as a result of the integration.

The business environment for oil has reached a major turning point. On one hand, demand has declined in Japan due to its dwindling birthrate and aging population as well as the spread of eco-friendly vehicles. On the other hand, demand has steadily grown overseas, especially in emerging countries. The new value chain created by the business integration between the JX Nippon Oil & Energy Group and the TonenGeneral Group has the vital social mission of paving the way for a stable supply of petroleum products in a difficult era with an unpredictable outlook.

Here we offer the latest overview of the JXTG Nippon Oil & Energy value chain, which we are transforming into an even more effective and robust structure from crude oil procurement to sales and export, with an eye on the future.

JXTG Nippon Oil & Energy operates a system for promptly providing a stable supply of petroleum products throughout Japan. These products, produced at refineries, are transported by means such as pipeline, coastal tanker or rail to oil depots in 61 locations nationwide before being distributed, primarily by tank truck, to service stations and customers. In addition to our own refineries, we also make use of other companies' refineries as well as oil depots as shipping bases for delivering petroleum products from the location nearest the point of consumption. With the merger of the JX Nippon Oil & Energy Group and the TonenGeneral Group, we will continue to strengthen our system for providing a stable supply from optimal shipping bases by integrating our distribution networks.

JXTG Nippon Oil & Energy operates service stations (SS) at approximately 13,600 locations across Japan. As a result of the business integration, our share of domestic gasoline sales now exceeds 50%, placing an even greater responsibility on the Group to supply energy as part of the social infrastructure. We operate under four brands\* – ENEOS, Esso, Mobil, and General – to provide a safe, stable supply of high-quality petroleum products at reasonable prices, along with the highest level of service.

SS are constructed according to rigorous building codes to ensure safety and fire resistance even in the event of a major earthquake. JXTG Nippon Oil & Energy operates earthquake-resistant SS equipped with a number of features to ensure that emergency vehicles from the police, Self-Defense Forces, fire department, and hospitals receive priority access to fuel in the event of a disaster.

\*To be integrated into the ENEOS brand by 2020.

## Number of Service Stations

JX 10,298 locations + TG 3,350 locations

13,648 locations  
(as of March 31, 2017)



Domestic Distribution

## Number of Oil Depots

61 locations  
(as of April 1, 2017)



Sales

To meet steadily growing energy demand from the Asia-Pacific region, we are implementing an active and flexible effort to sell our products in overseas markets by enhancing the export infrastructure at our refineries and plants in various locations, including Kawasaki, Osaka, and Chita. In our core business of basic chemical products, JXTG Nippon Oil & Energy has an established presence in the global market, boasting the number one share in the global market for paraxylene, a basic raw material for polyester fiber and PET resins, as well as the number one share in the Asian market for propylene, a basic raw material for synthetic resins and petrochemical products.

Looking ahead, we will expand our mid- and downstream petroleum businesses in markets outside Japan by operating and developing manufacturing sites and creating sales bases in cooperation with overseas business partners. By securing steady profit, we will build a formidable value chain that will also contribute to the stable supply of energy in Japan.

## Paraxylene Production Volume

3.62 million tons/year  
No. 1 in the world

## Propylene Production Volume

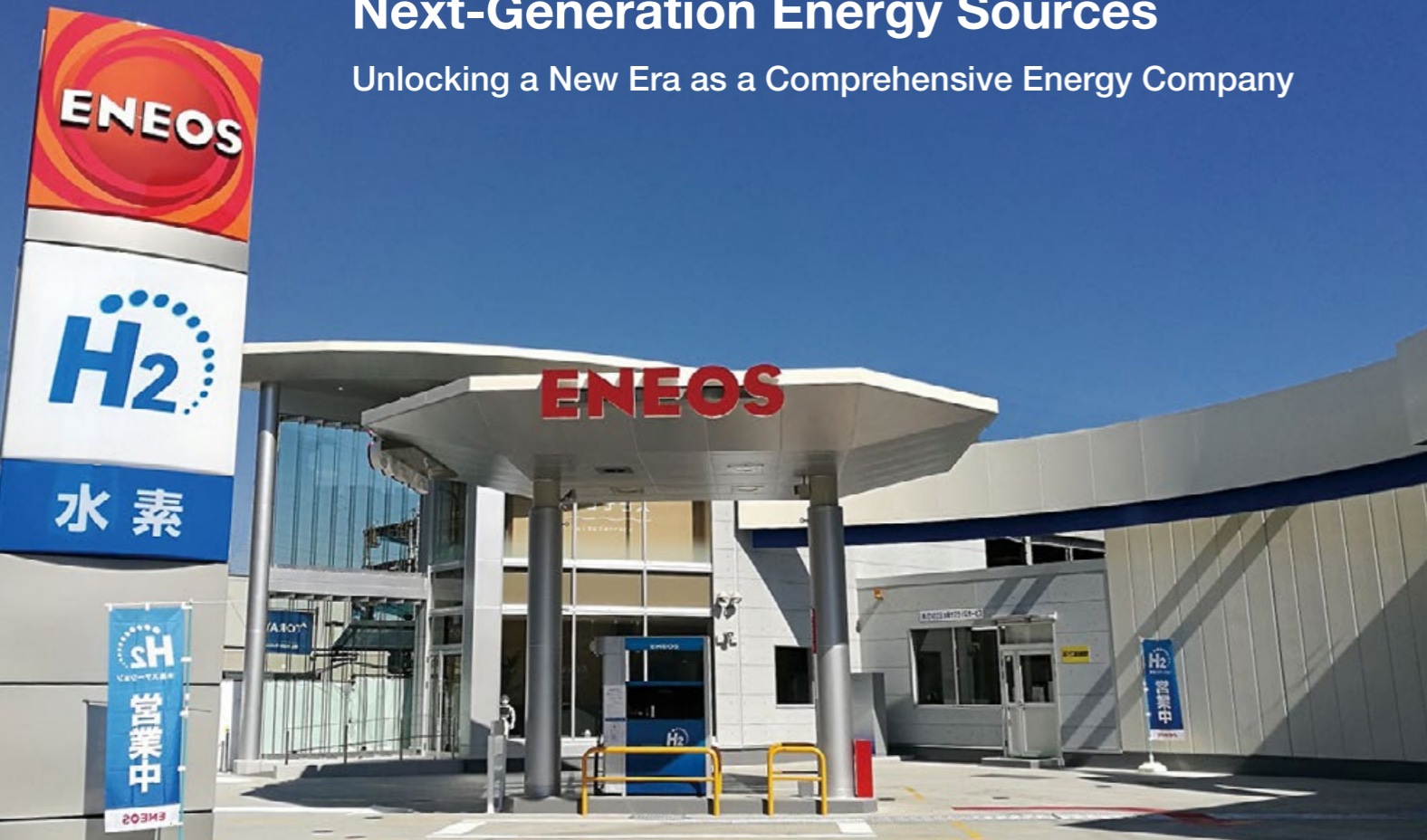
1.7 million tons/year  
No. 1 in Asia  
(as of March 31, 2017)



Export

# Taking on the Challenge of Diverse Next-Generation Energy Sources

## Unlocking a New Era as a Comprehensive Energy Company



### Sensitively Responding to the Energy Needs of Society

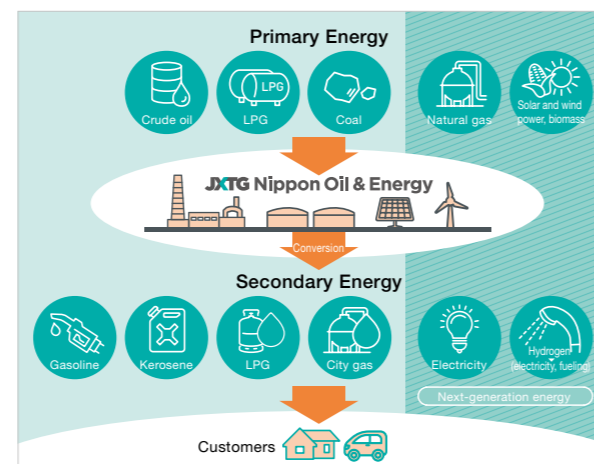
JXTG Nippon Oil & Energy is striving for continuous growth as a comprehensive energy company that converts primary energy such as crude oil, natural gas, coal, and solar energy into secondary energy such as gasoline, kerosene, city gas, and electricity, delivering a stable supply of energy to individuals and all of society.

The energy industry has reached a major turning point. For decades, global demand for energy was met by oil. However, in recent years the need to address global environmental issues has led to growing demand for a shift to clean energy with less environmental impact. Furthermore, the acceleration of electric power deregulation across the globe since the 1990s has enabled companies other than electric power companies to enter the market, significantly changing the business model.

JXTG Nippon Oil & Energy is actively engaged in

the next-generation energy business, responding to the changing times and needs to ensure continuous corporate growth.

#### Diverse Sources of Energy Handled by JXTG Nippon Oil & Energy



### Next-Generation Energy Business Hydrogen Business

## Building a Total Hydrogen Supply System that Integrates Production, Transport, and Sales

Hydrogen is garnering significant attention today as one of the most promising energy sources for the next generation. This clean energy source generates no CO<sub>2</sub> during use and can realize high efficiency in combination with fuel cells. In its “Strategic Roadmap for Hydrogen and Fuel Cells”, published in 2014, the Japanese government laid out mid- to long-term targets for initiatives aimed at realizing a hydrogen-based society, and private enterprises have begun taking action in line with the roadmap by selling fuel cell vehicles (FCVs) and building hydrogen stations for refueling them.

In response to these developments, JXTG Nippon Oil & Energy has been aggressively expanding its network

of hydrogen stations. We currently operate 40 hydrogen stations out of a total of 90 stations across Japan\*1. We are striving to deliver a stable supply of hydrogen to customers by utilizing the hydrogen-related expertise gained through our petroleum refining business. In 2016 we installed the Hydrogen Manufacturing and Shipment Center in Yokohama City, thereby establishing our hydrogen supply system for the Greater Tokyo Metropolitan Area. The ability to build a total supply chain that encompasses the manufacturing, transport, and sales of hydrogen provides JXTG Nippon Oil & Energy with a major competitive edge in the hydrogen business.

#### Hydrogen Supply Chain



Meanwhile, we are also promoting the growth of hydrogen. In 2017 we opened the Yokohama Tsunashima Hydrogen Station along with the Hydrogen Terrace showroom within the grounds of Yokohama City's Tsunashima



Exhibit simulating hydrogen refueling in a fuel cell vehicle

Sustainable Smart Town\*2. Through these efforts we are communicating the potential of hydrogen as the ultimate, CO<sub>2</sub> emission-free, clean energy source.

\*1 As of October 2017.

\*2 Project for innovative urban development based on collaboration among various companies across business sectors, including Panasonic Corporation, Nomura Real Estate Development Co, Ltd., and JXTG Nippon Oil & Energy. The project involves advanced initiatives, such as the effective use of energy for an entire town and planning for the construction of environmentally friendly town management facilities, condominiums, technological development facilities, and commercial facilities.

### Communicating the Merits of Hydrogen for the Realization of a Hydrogen-based Society



**Yuichi Tada**  
 Manager, Hydrogen Business Planning & Administration Group  
 Hydrogen Business Promotion Dept.  
 New & Renewable Energy Company

The Hydrogen Terrace is a showroom managed by JXTG Nippon Oil & Energy as a communication center for promoting a future hydrogen-based society. Focusing on the effectiveness of directly seeing and experiencing, we have created a space in which visitors can familiarize themselves with hydrogen through a theater setting that explains the characteristics of hydrogen and our ongoing initiatives, an exhibit that simulates hydrogen refueling, a model of a hydrogen station, and other exhibits. Since its opening about half a year ago, we have welcomed more than 1,000 visitors from companies and local governments as well as families and local residents. Looking ahead, JXTG Nippon Oil & Energy will continue to communicate information in step with the development and growth of a hydrogen-based society from the Hydrogen Terrace and explore the ideal vision for that society by holding events in collaboration with the Smart Town and other activities.

Next-Generation Energy Business **Electricity Business**

## Electricity Wholesale Business and Retail Sales to Households

JXTG Nippon Oil & Energy has been providing a stable supply of electricity through an optimal combination of electricity generated at its facilities and procured electricity, accumulating expertise in power generation over many years. We entered the IPP\*1 business in 1998 and began wholesaling electricity generated at our nationwide refineries to electric power companies in each region. Following the gradual deregulation of the electricity industry that began in 2000, we also launched a retail business as ENEOS Electricity in 2003.

Since then, we have been supplying high-voltage power to large-scale facilities such as factories, commercial facilities, and buildings, and in April 2016, with the complete deregulation of the electricity retail sector, we launched our service for ordinary households. We are currently serving the Greater Tokyo Metropolitan Area under the “ENEOS Electricity” brand, ranked “No. 1\*2” for customer satisfaction in fiscal 2016, and the Kanto, Chubu, and Kansai areas under the “my denki” brand.

In addition to using power from our refineries, we produce electricity from energy sources with less environmental impact, such as natural gas, and also utilize renewable energy sources including solar power, wind power and biomass\*3.

\*1 IPP is an acronym for Independent Power Producer, a non-utility generator that wholesales electricity to an electric power company.  
 \*2 Electricity retailing category, Japanese Customer Satisfaction Index (JCSI) in fiscal 2016.  
 \*3 Biomass is fuel produced from construction waste, forest thinning, and pruned branches. Although CO<sub>2</sub> is emitted during incineration, the plants used as raw material have absorbed CO<sub>2</sub> from the atmosphere during their growth process, thereby offsetting the CO<sub>2</sub> emissions. Due to this carbon-neutral effect, biomass is recognized as a source of energy with little environmental impact.



Kawasaki Natural Gas Power Plant

Next-Generation Energy Business **Electricity Business**

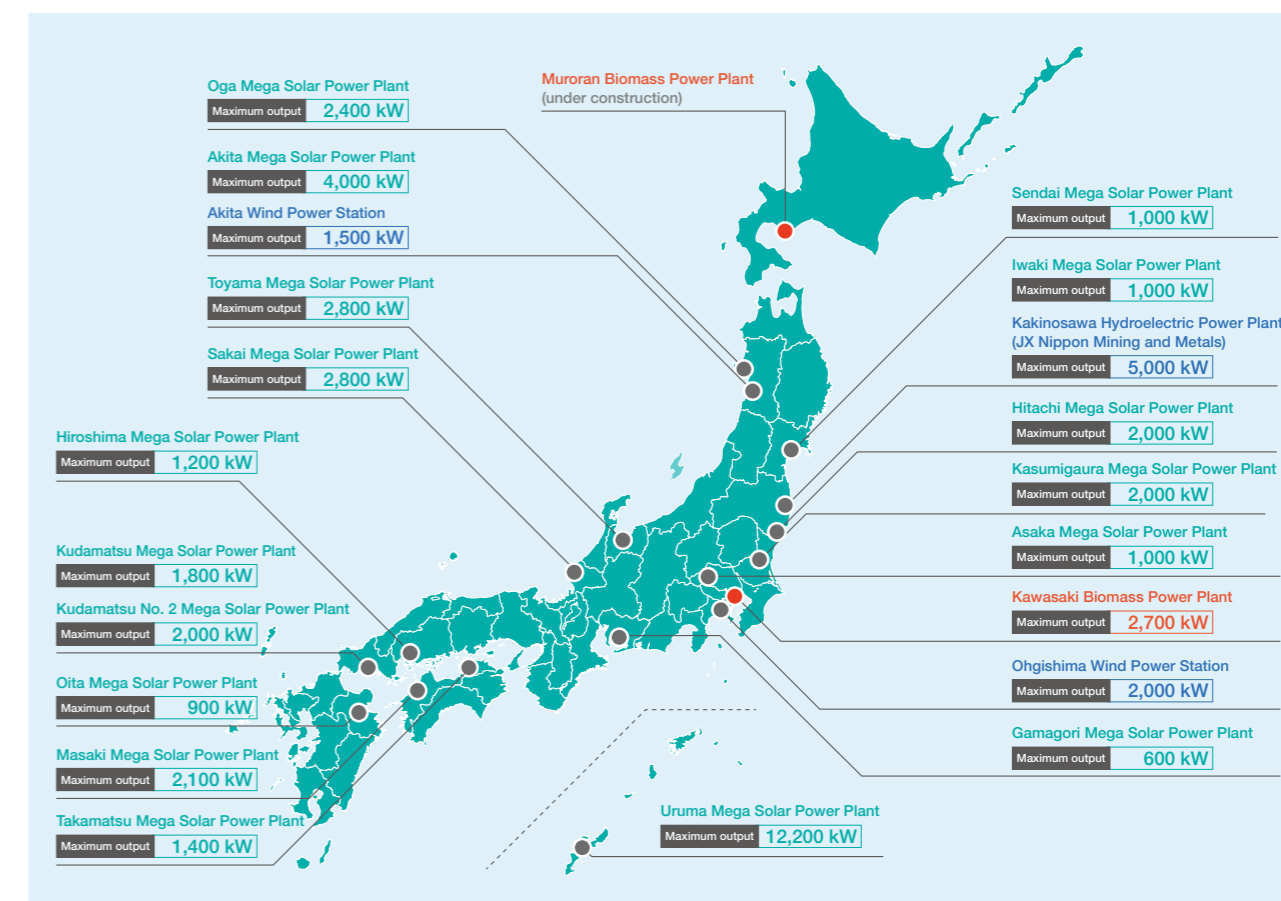
## Renewable Power Generation Business for Reducing CO<sub>2</sub> Emissions



The Uruma Mega Solar Power Plant is the largest in Okinawa Prefecture, generating 14.60 million kWh of electricity per year, or enough to power 4,000 homes over the same period.

Since the feed-in tariff system for renewable energy was launched in fiscal 2012, JXTG Nippon Oil & Energy has been actively engaged in the mega solar power generation business using the Group's idle land. Following the start of commercial operation of the Sendai Mega Solar Power Plant in February 2013, we are now operating mega solar power plants in 17 locations across Japan.

In addition to solar power, we are actively engaged in generating power from renewable energy sources including biomass, hydropower, and wind power. JXTG Nippon Oil & Energy will continue its contribution to reducing CO<sub>2</sub> emissions by utilizing clean energy.



Next-Generation Energy Business **Natural Gas Business**

## Expanding the Natural Gas Business to Provide a Stable Supply of Clean Energy

Liquid natural gas (LNG) is an extremely clean source of energy that does not generate SO<sub>x</sub>, a cause of acid rain, during incineration, and its exhaust fumes contain less NO<sub>x</sub> and CO<sub>2</sub>, which are associated with global warming and air pollution. Furthermore, there are ample proven reserves of 1.6976 trillion barrels, or 50.7 minable years\*, from LNG-producing countries around the world, ensuring excellent supply stability. Due to these advantages, the Japanese government is also promoting

the expanded use of LNG.

Since 2000, JXTG Nippon Oil & Energy has been aggressively developing LNG projects in countries such as Malaysia and Papua New Guinea. In Japan we opened the Mizushima LNG Terminal in Kurashiki City, Okayama Prefecture, in 2006, followed by the Hachinohe LNG Satellite Terminal in Hachinohe City, Aomori Prefecture, in 2007. Given expectations for increased natural gas demand, we expanded the Hachinohe LNG Satellite Terminal to receive large imports and constructed the Kushiro LNG Terminal in Kushiro City, Hokkaido Prefecture, to receive LNG from domestic feeder routes in 2015. In October 2017, we established the Ohgishima City Gas Supply Company in a joint venture to manufacture and supply city gas to Kawasaki City. Moreover, we plan to develop our business to supply city gas to the Greater Tokyo Metropolitan Area, further strengthening our domestic gas business.



The Hachinohe LNG Satellite Terminal has a storage capacity of 280,000 kl of LNG.

\*Agency for Natural Resources and Energy, Japan. Data as of the end of 2015.



Message from the  
PresidentAbout JXTG Nippon Oil  
& Energy**Management System**

CSR Management

Social Report

Environmental Report

# Management System

We adhere to the highest ethical standards in our management and strive to exercise thorough compliance and respond appropriately to social norms.



- 16 Corporate Governance
- 18 Internal Control System
- 20 Compliance
- 23 Risk Management

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
● Corporate Governance	Internal Control System	Compliance	Risk Management		

# Corporate Governance

## Fundamental Approach

The JXTG Group respects the position of its shareholders, customers, business partners, employees, local communities and other stakeholders and strives to realize the JXTG Group Philosophy through the establishment and operation of a corporate governance framework for the conduct of transparent, fair, timely, and decisive decision making in its business operations in order to achieve sustainable growth and increase its corporate value over the medium and long term.

### Overview of Corporate Governance

JXTG Nippon Oil & Energy has established and applies corporate governance based on the following policies.

#### ● JXTG Group Policy on Establishment and Operation of Corporate Governance

The JXTG Group is a group of companies whose core business consists of three business fields: the Energy business, the Oil and Natural Gas Exploration and Production business and the Metals business. In view of the fact that these three businesses are so distinct, the JXTG Group has established a structure under which JXTG Holdings serves as a holding company and the three Core Operating Companies, which promote each core business, are placed thereunder. Under this structure, from a standpoint of optimizing the value of the JXTG Group as a whole, JXTG Holdings takes charge of formulating the Medium-Term Management Plan, allocating management resources and overseeing the management of each Core Operating Company. As a Core Operating Company, JXTG Nippon Oil & Energy shall agilely execute its business activities in accordance with the Medium-Term Management Plan.

#### ● JXTG Nippon Oil & Energy Corporate Governance System

##### Board of Directors

As a means for ensuring adequate mutual supervision among directors, JXTG Nippon Oil & Energy has established its Board of Directors comprising the president, directors, corporate auditors and a part-time corporate auditor from JXTG Holdings. The board is responsible for making decisions on the execution of important operations.

To ensure proper management, the board in principle meets once a month according to the Rules for the Board of Directors and Guidelines on the Meeting Agenda for the Board of Directors in order to make decisions and receive directors' reports on the status of execution of their responsibilities.

##### Executive Officers and Executive Council

Executive officers are appointed and are responsible for operational execution, based on the decision of the Board of Directors. This system enables quick decision making by the board and the agile execution of operations by the executive officers. Within this framework, the board decides on issues as mandated by law and the articles of incorporation, and the Medium-Term Management Plan as well as important matters concerning operational execution at JXTG Nippon Oil & Energy and its subsidiaries. Other matters are efficiently executed in accordance with the Rules on Organization and Rules on Authority, which stipulate the organizational structure, job positions, division of duties, matters that require approval for each job capacity and position as well as the associated approval authority.

With respect to matters requiring the president's approval, an Executive Council is set up under the Rules Governing the Executive Council as an organ for deliberation. These matters are in principle submitted to the Executive Council, where members of management consider and deliberate as a group to ensure appropriate and efficient decisions.

Matters to be decided by the Board of Directors must, in principle, be approved by the president in advance.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
● Corporate Governance	Internal Control System	Compliance	Risk Management		

● JXTG Group System for Assuring the Proper Conduct of Business Activities

The president and one vice president of JXTG Nippon Oil & Energy are appointed as part-time directors of JXTG Holdings and also participate as members of its Executive Council to ensure that JXTG Holdings formulates management plans for the entire JXTG Group and makes key decisions to ensure effective business operation for JXTG Nippon Oil & Energy.

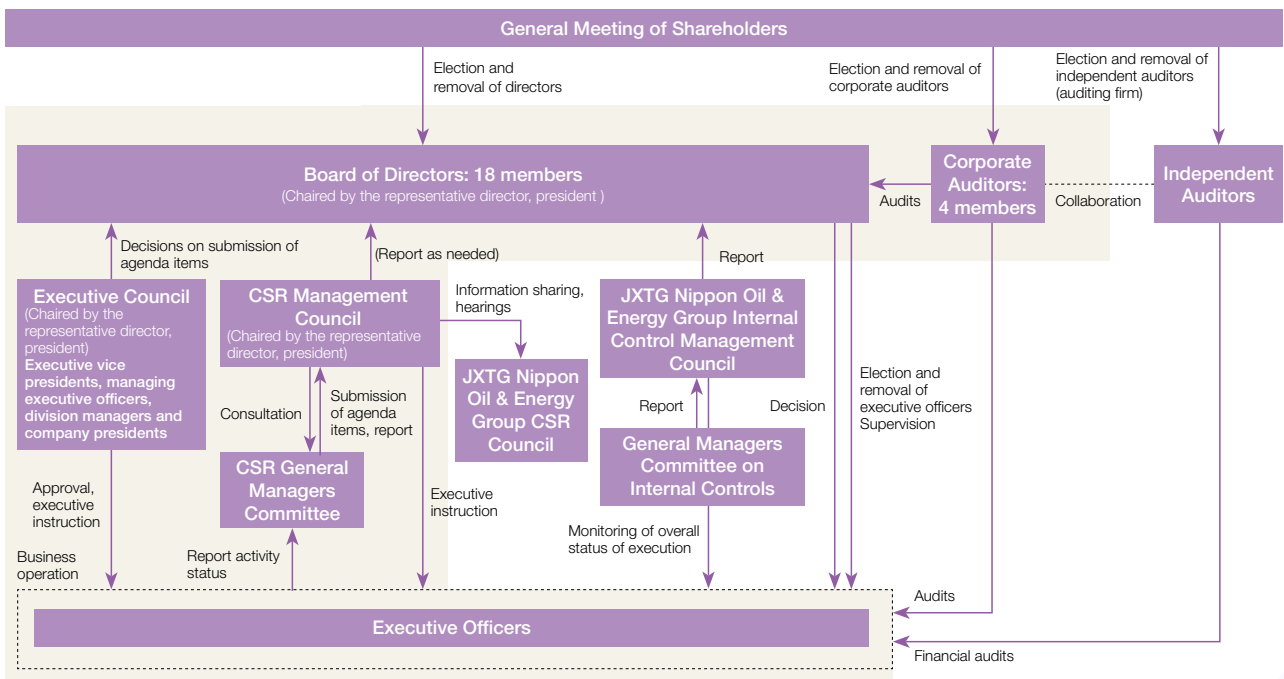
With respect to matters concerning the business operation of the JXTG Nippon Oil & Energy Group, matters that require approval by the Board of Directors and Executive Council, or approval by and reporting to the president of JXTG Nippon Oil & Energy, have been defined in the Regulations of the Board of Directors and Rules for the Management of Group Companies to assure the proper conduct of business activities of the JXTG Nippon Oil & Energy Group.

In addition, we have clearly designated the department at JXTG Nippon Oil & Energy that is responsible for managing each Group company and dispatch either a board member or employee to serve as part-time directors on the board of each Group company.

Furthermore, business operation matters that are important to JXTG Nippon Oil & Energy or its Group companies are handled under the Regulations of the Board of Directors and Rules on Organization and Authority of JXTG Holdings. These matters are accordingly decided by the Board of Directors and Executive Council of JXTG Holdings or submitted to the president for approval or reported to the president.

**JXTG Nippon Oil & Energy Corporate Governance System**

(As of June 30, 2017)



# Internal Control System

## F u n d a m e n t a l A p p r o a c h

The JXTG Nippon Oil & Energy Group strives to establish an effective internal control system to increase its corporate value. Recognizing internal control as a business infrastructure required to achieve the management goals under the JXTG Group Philosophy, we seek to strengthen the development and operation of our internal controls by adhering to a framework based on global standards.

### System Overview

To establish a system that ensures the propriety of our business operations as stipulated by Japan's Companies Act, the Board of Directors of JXTG Nippon Oil & Energy has established the Basic Policy for the Establishment and Operation of an Internal Control System to supervise the state of establishment and operation of internal controls under this policy.

We have also established the JXTG Nippon Oil & Energy Group Internal Control Management Council to ensure effective operation of the internal control system by regularly monitoring its operational status. The president chairs the council and reports the results to the Board of Directors.

Furthermore, we have introduced a framework based on global standards to enable all our organizations to systematically establish internal controls. In concrete terms, we are developing a mechanism for identifying risk factors that hinder the accomplishment of various goals at each organization so they can independently conduct appropriate internal control activities to achieve strategic goals in line with their respective management goals.

### Basic Policy for the Establishment and Operation of an Internal Control System

#### 1. System for Ensuring that the Execution of Duties by Directors and Employees Complies with Laws and Regulations as well as the Articles of Incorporation

- (1) Develop and enforce internal rules and comply with laws and regulations, articles of incorporation and internal rules.
- (2) Develop and operate a whistleblower system.
- (3) Hold monthly meetings of the Board of Directors and conduct thorough deliberations and reporting in accordance with the Rules for the Board of Directors.
- (4) Establish an Internal Audit Department that is independent from other divisions and conduct internal audits.
- (5) Establish and enforce rules for preventing relationships with anti-social forces.

#### 2. System for the Storage and Management of Information Related to the Execution of Duties by Directors and Employees

- (1) Establish and enforce rules on documentation.
- (2) Prepare minutes of the Board of Directors' meetings based on laws and regulations.
- (3) Develop and enforce rules on information security and provide employee training to ensure full compliance.
- (4) Prepare business reports and financial statements in an appropriate manner.

#### 3. Rules and Other Systems for Managing the Risk of Loss

- (1) Analyze risks and clarify measures for addressing the risks at the meetings of the Board of Directors and the Executive Council.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	<b>Internal Control System</b>	Compliance	Risk Management		

- (2) Establish and enforce rules for addressing major changes in the economy, prices of crude oil and other resources, and foreign exchange rates as well as natural disasters and other risks.
- (3) Establish and enforce rules for systems that promote internal control related to the execution of operations.
- (4) Establish and apply systems and rules for securing safety, preserving the environment and ensuring health.
- (5) Establish and apply systems and rules for responding to crises and emergency situations.

#### 4. System for Ensuring Efficient Execution of Duties by Directors and Employees

- (1) Establish and enforce rules on organization and authority and efficiently execute duties.
- (2) Deliberate at the meeting of the Executive Council to ensure appropriate and efficient decision making by the president.
- (3) Obtain the president's approval before decision making by the Board of Directors.
- (4) Formulate the Medium-Term Management Plan and develop and operate management control systems.
- (5) Establish and operate an optimal IT system for effective information management, standardization and streamlining of operations and strengthening of internal control.

#### 5. System for Ensuring Appropriate Business Operation within the Corporate Group

- (1) Ensure complete understanding of the JXTG Group Philosophy and JXTG Group Code of Conduct.
- (2) The president and other officials shall participate in the meetings of the Board of Directors and Executive Council of JXTG Holdings.
- (3) Important issues related to the execution of operations at Group companies shall be submitted to the Board of Directors and Executive Council of JXTG Nippon Oil & Energy for decision making, approval and reporting. Important issues related to the execution of operations of JXTG Nippon Oil & Energy, including Group companies, are to be submitted to the Board of Directors and Executive Council of JXTG Holdings for decision making, approval and reporting.
- (4) Establish and enforce Rules for Group Management and ensure full compliance.
- (5) Establish and operate internal control systems for the JXTG Nippon Oil & Energy Group, including the systems for compliance, ensuring the integrity of financial reporting and IT-based internal control.
- (6) Appropriately develop and operate internal control systems by establishing and monitoring the operations of the internal control systems of JXTG Nippon Oil & Energy and its Group companies and providing corrective responses to defects at the meetings of the Internal Control Council of JXTG Nippon Oil & Energy and the Internal Control Council of JXTG Holdings.

#### 6. System for Ensuring Effective Auditing by Corporate Auditors

- (1) Respect the audit standards and audit plans and cooperate in the smooth performance of audits and the assurance of proper conditions for an audit.
- (2) Provide corporate auditors with opportunities to attend Executive Council and other meetings. Establish and operate a system for ensuring appropriate reporting by JXTG Nippon Oil & Energy and its Group companies to the corporate auditors.
- (3) Establish and operate a system for promptly reporting to corporate auditors any material violations of laws, regulations or articles of incorporation, or fraud by JXTG Nippon Oil & Energy or its Group companies.
- (4) Establish and operate a system for ensuring that persons who report to the corporate auditors are not treated unfavorably as a consequence.
- (5) Hold exchanges of views between the corporate auditors and members of management on management issues.
- (6) Ensure close collaboration between the corporate auditors and the Internal Audit Department.
- (7) Establish the Auditors Affairs Office as an organization independent from the business execution sections and ensure that instructions from the corporate auditors to the staff are carried out.
- (8) Bear the fair burden of any expenses or debt associated with the execution of duties of the corporate auditor.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	<b>Compliance</b>	Risk Management		

# Compliance

## Fundamental Approach

The JXTG Nippon Oil & Energy Group pursues fair and open business activities and has established various rules to govern the compliance of each Group company in order to maintain and foster greater trust with society. Employees are required to comply with all relevant laws, contracts and internal rules while adhering to social norms in every aspect of their work duties.

We seek to retain the trust of all our stakeholders by giving top priority to safety and compliance in all of our business activities as we strive to further strengthen our compliance system through a Group-wide effort.

### System for Promoting Compliance

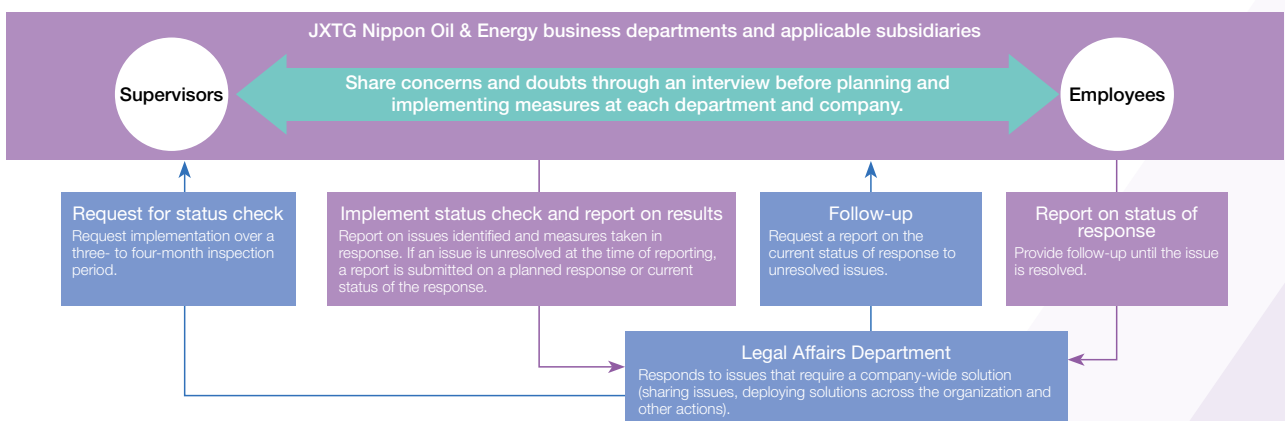
Under JXTG Nippon Oil & Energy’s compliance rules, we promote compliance by defining the components for implementing the following eight compliance activities and by putting them into action in a systematic and organized manner.

One component of our compliance status self-checks is the legal compliance status checks, in which each employee meets with a supervisor and seeks to identify and resolve any compliance issues that may exist in his or her work process. This mechanism functions as the core component of our system for promoting compliance. As a similar system for our overseas operations, we completed the assignment of regional legal affairs officers to our subsidiaries and offices in Beijing, London, Singapore and New York by October 1, 2016. These regional legal affairs officers promote the development of compliance systems at our overseas subsidiaries and offices in their respective regions.

#### Eight Components for Implementing Compliance Activities

- |   |  |
|---|--|
| 1. President’s Message on achieving compliance            | 6. Discipline for compliance violations  |
| 2. Understanding applicable laws and risks                | 7. Developing and implementing a whistleblower system (compliance hotline)               |
| 3. Developing and implementing regulations based on risks | 8. Advice and support concerning the establishment of compliance systems at subsidiaries |
| 4. Compliance status self-checks                          |  |
| 5. Legal affairs training and information sharing         |  |

#### Mechanism for Legal Compliance Status Checks



Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	<b>Compliance</b>	Risk Management		

## Compliance Education

We organize training and development sessions on compliance and legal matters in order to foster greater awareness in each and every one of the board members and employees of JXTG Nippon Oil & Energy Group companies to take responsibility in practicing compliance in their daily business activities.

### ● Legal Affairs Training

We regularly hold compliance training sessions for the executive officers and employees of JXTG Nippon Oil & Energy Group companies as well as other training sessions on a wide range of subject matter, including the competition law, the Subcontract Act, prevention of bribery, information security and seminars on writing documents and contracts. We share information with our subsidiaries by making these training materials available to them. Moreover, we organize legal affairs training for our overseas subsidiaries and offices in collaboration with local law firms and also provide e-learning.

The Legal Affairs Department dispatches lecturers to speak on specific themes requested by individual departments and subsidiaries.

In view of the business integration, we conducted briefings at our head office and nationwide branch offices and refineries during fiscal 2017 to deepen understanding of our unified internal rules and compliance systems.

## Whistleblower System (Compliance Hotline)

Compliance-related inquiries and issues should in principle be resolved through conversations with a supervisor. However, a whistleblower system has been established to ensure rapid correction when it is difficult to have such a conversation.

The whistleblower system can be used by employees, temporary staff, contract employees, part-time staff and employees of subcontractors engaged in work for JXTG Nippon Oil & Energy. The system enables individuals to report on any action that appears to be in violation of the law, when it becomes known to them or when they are instructed to engage in such an act. They can report by either using their real name or anonymously, and we also provide a hotline to an outside lawyer.

In addition, the JXTG Group operates a Group whistleblower system. Under the system, an individual can report on an incident to the hotline set up inside the company where the incident occurred or to a hotline set up by another Group company.

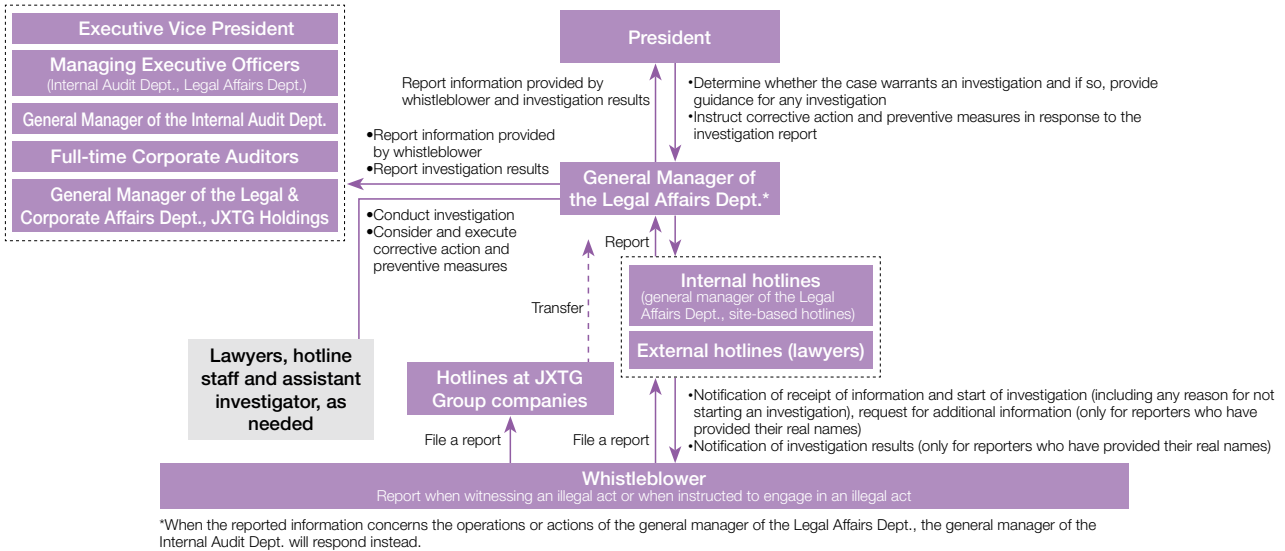
We are currently developing a plan to introduce the system at overseas subsidiaries and offices in accordance with their respective circumstances.

When a report is received, immediate action is taken to investigate the facts, and if a legal violation or possible violation is confirmed, corrective action and preventive measures are promptly executed to resolve the issue.

Any reported information is handled as confidential, and anyone with knowledge of the information, including staff responding to the report or cooperating with the investigation, as well as the target of the investigation, are placed under stringent obligations concerning information management. Individuals involved in the matter are strictly forbidden from subjecting the reporter to any negative consequences.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	<b>Compliance</b>	Risk Management		

● Compliance Hotline and Flow of Reporting



**Antitrust Law Compliance**

As part of its initiatives for complying with the Antitrust Law, JXTG Nippon Oil & Energy has established its Competition Law Compliance Guidelines to set out the rules governing contact with rival companies. Directors and employees are required to comply with these rules to avoid violating the Antitrust Law.

As the department in charge, the Legal Affairs Department monitors and verifies the state of compliance in each department on an annual basis. The guidelines are revised as needed to reflect actual business practices to establish and apply rules that are effective and viable.

The introduction and operation of the Competition Law Compliance Guidelines are also being promoted at our overseas subsidiaries and offices in accordance with the antitrust laws of each country.

**Bribery Prevention**

As an initiative for preventing bribery, JXTG Nippon Oil & Energy has established its Bribery Prevention Guidelines, which strictly prohibits directors and employees from giving or receiving bribes in connection with our business, under concrete rules set out to avoid violations. Similar guidelines are being introduced and applied at our overseas subsidiaries and offices.

The guidelines are intended to prevent bribery at JXTG Nippon Oil & Energy as well as by consultants, agents and subcontractors with which we do business. To that end, we conduct investigations when selecting business partners and ask that they take measures against bribery as necessary. We have also created a set of rules governing entertainment, gifts and donations in the private sector. Looking ahead, we will continue to pay close attention to policies developed by regulatory authorities in each country in order to maintain highly transparent and proper relationships with politicians, government officials and business partners.

**Personal Information Protection**

JXTG Nippon Oil & Energy revised its Personal Information Protection Manual in response to Japan's revised Personal Information Protection Act, which came into effect in May 2017.

We will promote the introduction and use of this manual at our overseas subsidiaries and offices by incorporating revisions to meet the requirements of local regulations on protecting personal information.



Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	Compliance	<b>Risk Management</b>		

# Risk Management

## Fundamental Approach

JXTG Nippon Oil & Energy has developed a company-wide crisis management system to minimize damage in crisis or emergency situations that may affect our operation by responding promptly and effectively. Furthermore, we are strongly aware of our responsibility as a supplier of petroleum products, which are essential to daily life and the economy as a whole, and therefore pursue a basic policy of fulfilling our social responsibility by providing a continuous supply of products, even in the event of a major disaster.

### Crisis Management

Daily preventive activities are fundamental to crisis management, and JXTG Nippon Oil & Energy strives to prevent accidents and problems before they occur by using operations manuals and training programs with an emphasis on compliance. We have also established a system that enables us to respond to a crisis or emergency in a timely and appropriate manner.

Our Crisis and Emergency Response Rules stipulate that a response headquarters led by the president shall be set up whenever an incident occurs that significantly impacts the operation of the company, such as a disaster, accident or misconduct. Under these rules, the five points listed below will be followed as a basic response.

**Basic Response**

1. **Priority must be given to protecting human life**
2. **Information must be conveyed in a timely manner and centrally managed**
3. **Decide, implement and monitor the best solution as quickly as possible**
4. **Communicate smoothly and transparently**
5. **Prevent reoccurrence**

If an accident or problem does occur, we make every effort to promptly announce details to the public through news releases or via our corporate website and to initiate all means necessary to prevent reoccurrence.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	Compliance	<b>Risk Management</b>		

We define crisis or emergency situation as any of the following situations that require a company-wide response or a coordinated response involving relevant departments.

- (1) Situations in which people suffer or may suffer serious injuries or damages**
- (2) Situations in which significant damage is caused or may be caused to a third party's property**
- (3) Situations in which a serious legal violation occurs or may occur**
- (4) Situations where our company name or brand name is reported or may be reported in mass media, including TV, newspapers and the Internet**
- (5) Situations in which the operation of the company is significantly impacted or may be significantly impacted due to the nature, scale, urgency or societal interest of the situation**

If a crisis or emergency situation occurs, the person in charge of the location where the situation occurred will immediately report to the president through the general manager of the Crisis Management Department. When the president considers it necessary, a response headquarters will be set up to deal with the emergency under the leadership of the president. The response headquarters will centrally manage all information related to the crisis or emergency situation as well as determine and order the measures to be executed. It will also investigate the causes and take steps to prevent reoccurrence.

### Disaster Response

Effective April 1, 2015, JXTG Nippon Oil & Energy was authorized as a designated public corporation in accordance with the Disaster Countermeasures Basic Act. Designated public corporations maintain an obligation to cooperate in facilitating the formulation and implementation of Japan's national disaster management plans. Such corporations must formulate a disaster management operation plan, establish a disaster management system and take steps to prevent damages from a disaster, including those in accordance with related laws and regulations. Designated public corporations also prepare emergency response measures and disaster recovery measures to be implemented in the event of an actual disaster.



Disaster response operation plan

To efficiently implement these measures, we have established the Safety Confirmation System to confirm the safety of all employees, and the Disaster Information Sharing System to share the state of the disaster with the head office and business sites. We have also equipped all of our business sites with mobile phones offering priority access during a disaster, satellite phones, MCA wireless communication and emergency supplies.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	Compliance	<b>Risk Management</b>		

### Measures for Major Earthquakes

In April 2014, the government of Japan enacted the Strategic Energy Plan in order to implement long-term, comprehensive and systematic measures for the supply and demand of energy. Under this plan, due to the role of oil and LP gas as last-resort energy sources, oil companies, along with LP gas providers, must establish business continuity plans (BCPs) and business continuity management (BCM) for their supply networks, including affiliated service stations and distribution processes from refineries and oil depots, as well as increase their response capacity so that necessary volumes of supply can be secured even in the aftermath of a major earthquake.

JXTG Nippon Oil & Energy has established an in-house system for a major earthquake and BCPs based on the scenarios of the anticipated Nankai Trough Great Earthquake and Tokyo Inland Earthquake to ensure that it can maintain the supply of fuel oil during such emergencies. Additionally, together with related departments and partner companies, we periodically carry out training drills based on these scenarios for each phase of the disaster, from immediately after a quake to the recovery period. This ensures that we are constantly improving the effectiveness of our BCPs.



Disaster response drill at the head office

### Emergency Response after the Kumamoto Earthquake following the Recommendation to Implement the Coordinated Oil Supply Plan for Disasters

After the enactment of the revised Oil Stockpiling Act (November 2012), petroleum refiners and wholesalers in ten regions nationwide collaborated to create oil supply coordination plans and registered with the Ministry of Economy, Trade and Industry. Under these plans, during a disaster, each participating company will share information about the disaster-affected areas as well as respond to emergency requests for fuel from local governments and open up storage facilities for shared use in an effort to fulfill its responsibility to provide a stable supply of oil products. With sales networks across the country, JXTG Nippon Oil & Energy is a registered company in all ten regions.

The recommendation for implementing coordinated oil supply was issued for the first time during the Kumamoto Earthquake, which struck on April 14, 2016. In accordance with the plan, we made every effort possible to ensure a continuous supply of fuel to the disaster-affected areas based on our experience from the Great East Japan Earthquake and BCP. Shipments were greatly increased using tank trucks from other parts of Kyushu and the Chugoku area. Tank trucks were also put on standby around Mashiki Town, which suffered serious damage, to ensure that all steps were taken to secure a stable supply. Moreover, shipment hours were extended at oil terminals, which quickly cleared fuel shortages at services stations. We also responded to an emergency request from the government and supplied fuel to mobile power supply trucks to support prompt recovery by continuously supplying fuel to the affected region.

### Measures Against Pandemic Influenza and New Infectious Diseases

The Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response was enacted in April 2013 in order to protect the health and lives of the people of Japan and minimize impacts on people's lives and the economy in the event of a highly pathogenic pandemic influenza or new infectious diseases with a similar threat level. In June 2013, the National Action Plan for Pandemic Influenza and New Infectious Diseases and Guidelines for Pandemic Influenza and New Infectious Diseases were revised.

JXTG Nippon Oil & Energy has established a BCP following this action plan and these guidelines to ensure the safety of employees and their families as well as the continuity of its business operations.

### Measures to Ensure Overseas Safety

We have observed an increasing diversity and frequency of overseas risks, including terrorism and natural disasters. In response, JXTG Nippon Oil & Energy has been actively engaged in establishing a crisis management system and safety measures. We are specifically collecting safety information, establishing emergency communication networks and safety confirmation systems, bolstering safety measures based on local research and implementing education and training for expatriate employees and local staff.

Message from the President	About JXTG Nippon Oil & Energy	<b>Management System</b>	CSR Management	Social Report	Environmental Report
Corporate Governance	Internal Control System	Compliance	<b>Risk Management</b>		

## Information Security

In accordance with the company’s Basic Rules on Information Security, information security at JXTG Nippon Oil & Energy involves the prevention of improper access, disclosure or divulcation of corporate information, which is an important corporate asset, and the protection of corporate information against illegal access both from within and outside the company. This enables us to maintain corporate information in a complete and secure manner as well as provide approved users access to this corporate information whenever it may be needed.

We have also enacted the JXTG Nippon Oil & Energy Privacy Policy as a basic policy governing our protection of personal information. Going forward, we will continue to engage in educational activities including holding briefings on company rules pertaining to information security as well as conducting a survey on information security covering all business sites and using the results to provide feedback on the company’s efforts, in order to foster greater awareness and improve employee knowledge of information security practices.

Message from the President	About JXTG Nippon Oil & Energy	Management System	<b>CSR Management</b>	Social Report	Environmental Report
----------------------------	--------------------------------	-------------------	-----------------------	---------------	----------------------

# CSR Management

JXTG Nippon Oil & Energy regards its CSR activities as synonymous with the faithful practice of the JXTG Group Philosophy, and it strives to realize a sustainable society together with its stakeholders.





● CSR Management

## Stakeholder Engagement

The JXTG Nippon Oil & Energy Group actively considers the views and expectations of its various stakeholders and is committed to reflecting this feedback in its business activities.

We strive to remain a trusted group of companies by squarely addressing global social issues as a comprehensive energy company to advance initiatives for resolving these issues and by consistently maintaining an honest dialogue with our stakeholders.

### Customers

We solicit customer requests and expectations through various means, including customer service centers and sales contacts. This feedback is then shared with relevant business divisions to facilitate prompt and sincere response.

- (Primary methods of engagement)
- Communication by marketing & sales, quality assurance and other divisions
  - Opinions gathered through customer service, surveys and other means
  - Communication through the corporate website

### Local Communities/International Society

The company addresses the needs and expectations of society through its business activities and is actively involved in local events and proactively engages local communities through volunteer activities, working as a responsible member of the local communities where we operate. Furthermore, we seek to build and maintain sound relations with local communities at each of our operational sites through ongoing dialogue.

- (Primary methods of engagement)
- Dialogue with local governments
  - Social contribution activities by employees
  - Communication with local residents

### Business Partners

With respect to our valued business partners, the JXTG Nippon Oil & Energy Group strives to continually engage in fair and equitable transactions across our entire supply chain, and we are working to build positive and sound relationships through dialogue undertaken by various means of engagement.

- (Primary methods of engagement)
- Communication by procurement, quality assurance, engineering and other divisions
  - Health and Safety Committee
  - Dialogue through business partner surveys and other means



### Employees

We have put in place various systems and programs to enable employees to realize their potential and work in a comfortable environment. Moreover, various measures have been introduced to enable employees to maintain a healthy balance in fulfilling their responsibilities at work and at home.

- (Primary methods of engagement)
- Dialogue with management
  - Website, Group employee magazine and intranet

### NPOs/NGOs

The JXTG Nippon Oil & Energy Group is building relationships with NPOs and NGOs in an effort to proactively take part in environmental conservation and community contribution activities. We are participating in activities for the conservation of endangered species and to establish green belts at our business sites for the conservation of local biodiversity.

- (Primary methods of engagement)
- Dialogue through collaborative efforts and support
  - Biodiversity conservation activities at refineries and plants

● CSR Management

**Commitment to External Initiatives**

● **United Nations Global Compact**

JX Nippon Oil & Energy supports the 10 principles on human rights, labor, the environment and anticorruption advocated by the United Nations Global Compact. As a member of Global Compact Network Japan, we are working to resolve international issues through our own business activities as well as to share the results of activities with other member companies and organizations.



**The 10 Principles of the United Nations Global Compact**

**Human Rights**

**Principle 1:** Businesses should support and respect the protection of internationally proclaimed human rights; and

**Principle 2:** make sure that they are not complicit in human rights abuses.

**Labour**

**Principle 3:** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

**Principle 4:** the elimination of all forms of forced and compulsory labour;

**Principle 5:** the effective abolition of child labour; and

**Principle 6:** the elimination of discrimination in respect of employment and occupation.

**Environment**

**Principle 7:** Businesses should support a precautionary approach to environmental challenges;

**Principle 8:** undertake initiatives to promote greater environmental responsibility; and

**Principle 9:** encourage the development and diffusion of environmentally friendly technologies.

**Anti-corruption**

**Principle 10:** Businesses should work against corruption in all its forms, including extortion and bribery.

**The SDGs and JXTG Nippon Oil & Energy Group's Commitment**

In September 2015, the United Nations Sustainable Development Summit adopted the Sustainable Development Goals (SDGs) as an action plan consisting of 17 goals and 169 targets for people, the earth and prosperity. Since these goals came into effect in January 2016, a worldwide effort has been underway to achieve the SDGs, and companies are expected to actively contribute.





● CSR Management

The JXTG Nippon Oil & Energy Group is committed to broadening understanding and assigning priorities to the goals that are most closely connected to its business activities.



**Goal 5: Achieve gender equality and empower all women and girls**

▶ Engagement with Employees (p. 45)



**Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all**

▶ Feature (p. 12)  
▶ Engagement with Customers (p. 39)



**Goal 8: Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all**

▶ Engagement with Employees (p. 45)



**Goal 13: Take urgent action to combat climate change and its impacts**

▶ Environmental Report (p. 73)



**Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

▶ Environmental Report (p. 73)



**Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt loss of biodiversity**

▶ Engagement with Civil Society (p. 57)  
▶ Environmental Report (p. 73)

TOPIC

**Supporting the Education of Future Female Engineers in the United Arab Emirates**



In July 2016, JXTG Nippon Oil & Energy sponsored a tour of its Sakai Refinery for 13 visitors from the United Arab Emirates, consisting of students and faculty members of United Arab Emirates University and the Petroleum Institute Abu Dhabi. This was part of an initiative led by INPEX Corporation for providing training in Japan for students from these academic institutions, and all of the participants were women. Japan and the UAE have conducted exchanges in the past through the Friendship Committee for Women Career Development. Our female engineers, therefore, took the lead in presenting an overview of the Sakai Refinery and conducting the tour.



Students from the UAE listen attentively to an explanation.

## List of CSR Activities in the Priority Fields

The JXTG Nippon Oil & Energy Group has begun to engage in CSR activities based on its priority fields for CSR as designated after the merger. Moving forward, we will strive to make improvements through repeated PDCA cycles to revitalize these efforts.

CSR activities for FY2016 were carried out by the former JX Nippon Oil & Energy Group and former TonenGeneral Group based on their respective priorities and themes, which have been reclassified according to the new priority fields of the JXTG Nippon Oil & Energy Group for publication in this report.

Priority Fields for CSR	Results for FY2016	Policies for FY2017	Related pages
1. High Ethical Standards	<ul style="list-style-type: none"> <li>Offered training to achieve greater understanding and dissemination of principles, such as training related to CSR and business ethics and for locally hired employees at overseas sites.</li> <li>Offered e-learning on CSR (6 sessions)</li> </ul>	<ul style="list-style-type: none"> <li>Promote greater understanding and dissemination of the new JXTG Group Philosophy and Code of Conduct</li> <li>Conduct a CSR awareness survey and formulate an action plan for each division</li> </ul>	pp. 18-19
2. Compliance	<ul style="list-style-type: none"> <li>Conducted Legal Compliance Status Checks (May 9 to August 5, 2016)</li> <li>Established and began operating a system for full compliance with competition laws (introduction and promotion of compliance guidelines for competition laws at overseas subsidiaries and offices, and other activities)</li> </ul>	<ul style="list-style-type: none"> <li>Conduct Legal Compliance Status Checks (October 2, 2016 to January 26, 2017)</li> <li>Implement initiatives (internal training and other activities) for compliance with important laws and regulations (competition laws, etc.)</li> </ul>	pp. 20-22
3. Safety and Environment	<p><b>Safety</b></p> <ul style="list-style-type: none"> <li>Introduced safety awareness training (participation: 34,000 employees)</li> <li>Interviewed supervisors of contractor companies at all refineries and plants and provided safety guidance</li> <li>Joint safety activities with contractor companies</li> </ul> <p><b>Environment</b></p> <ul style="list-style-type: none"> <li>Expanded scope of environmental management to consolidated subsidiaries and equity-method affiliates</li> <li>Published three issues of "Kankyo Kawaraban" (factsheet on the environment), conducted one e-learning session</li> <li>Supported ISO 14001 certification at two Group companies</li> </ul>	<p><b>Safety</b></p> <ul style="list-style-type: none"> <li>Strengthen measures for achieving zero industrial injuries</li> <li>Deploy safety activities linked with the Safe Operations Management System</li> </ul> <p><b>Environment</b></p> <ul style="list-style-type: none"> <li>Formulate and execute the Medium-Term Environmental Management Plan (FY2017-FY2019 and Long-range Environmental Targets to FY2030)</li> <li>Promote energy conservation measures at refineries and other sites</li> <li>Promote sales and development of environmentally-friendly products</li> <li>Develop hydrogen and renewable energy businesses</li> <li>Promote waste reduction measures</li> </ul>	<p><b>Safety</b></p> <p>pp. 34-38</p> <p><b>Environment</b></p> <p>pp. 74-95</p>
4. Human Rights	<ul style="list-style-type: none"> <li>Continued to implement human rights awareness training</li> <li>Maintained workplace environment through the human rights consultation center</li> <li>Continued to implement sign language classes</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen and enhance human rights awareness training</li> <li>Maintain workplace environment through the human rights consultation center</li> <li>Continue to implement sign language classes</li> <li>Further promote hiring of employees with disabilities</li> </ul>	pp. 45-46 pp. 49-50
5. Human Resource Development	<ul style="list-style-type: none"> <li>Implemented training programs</li> <li>Introduced and implemented one-month overseas posting program (global business skills training) for younger employees</li> <li>Implemented initiatives based on the Action Plan for the Advancement of Women in the Workplace</li> </ul>	<ul style="list-style-type: none"> <li>Reconstruct human resource development system and disseminate information</li> <li>Promote internal reconciliation through dialogue and other programs</li> <li>Implement initiatives based on the Action Plan for the Advancement of Women in the Workplace</li> </ul>	pp. 47-49
6. Health	<ul style="list-style-type: none"> <li>Reduced total annual working hours through the "Goodbye Overtime - Action 8" campaign</li> <li>Promoted voluntary, comprehensive occupational health management with the collaboration of specialists</li> </ul>	<ul style="list-style-type: none"> <li>Further promote work-life management by implementing initiatives for reducing total annual working hours and other programs</li> <li>Unify risk assessment methods for occupational health and establish measures for reducing risks</li> </ul>	pp. 51-52
7. Quality	<ul style="list-style-type: none"> <li>Offered a swift response to the 2015 version of the ISO 9001 quality management system</li> <li>Strengthened information sharing process for complaints about quality to prevent similar incidents</li> <li>Identified weaknesses and made prompt improvements by conducting quality audits both internally and at partner companies</li> <li>Implemented quality training to raise employee awareness</li> </ul>	<ul style="list-style-type: none"> <li>Introduce a quality management system at refineries and plants</li> <li>Promote priority measures to reduce complaints about SS quality</li> <li>Promote quality audits to prevent complaints about quality</li> <li>Enhance activities for improving customer satisfaction (CS) for the entire JXTG Nippon Oil &amp; Energy Group</li> </ul>	pp. 39-44
8. Social Contribution	<ul style="list-style-type: none"> <li>Supported persons with disabilities through sports with employee participation</li> <li>Lectures by disabled athletes, viewing of disabled sports tournaments and participation as volunteers, opportunities for experiencing disabled sports (about 730 board members and employees participated)</li> <li>Steadily executed activities rooted in the local communities around each business site</li> </ul>	<ul style="list-style-type: none"> <li>Pursue activities centered on supporting persons with disabilities through sports</li> <li>Promote social contribution activities in the priority areas of energy, the environment, and sports and culture</li> </ul>	pp. 57-72

Message from the  
PresidentAbout JXTG Nippon Oil  
& Energy

Management System

CSR Management

Social Report

Environmental Report

# Social Report

JXTG Nippon Oil & Energy is committed to serving society as a corporate citizen that supports day-to-day life. We will maintain our focus on safety as we pursue business activities that enable us to meet the needs of an ever-changing society.

- 
- 34** Safety Initiatives
  - 39** Engagement with Customers
  - 45** Engagement with Employees
  - 54** Engagement with Business Partners
  - 57** Engagement with Civil Society

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
<b>Safety Initiatives</b>	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

# Safety Initiatives

**Attention to safety is the basis of all JXTG Nippon Oil & Energy business activities. We implement measures for the prevention of every type of incident and injury while also preparing preventive and emergency measures against damage caused by natural disasters.**

Our mission is to provide a stable supply of energy, and the continuation of our business depends on maintaining safe operations at our manufacturing sites. The business integration has enabled us to combine the advanced technology and knowledge accumulated under different corporate cultures. Applying these comprehensive strengths, we will maintain the highest level of safety in the operations of all our refineries and plants in our efforts to fulfill our responsibility to society.

**Koichi Kato**  
Deputy General Manager  
Safety, Health & Environment Department



## Group Safety Philosophy Fundamental Approach

The JXTG Nippon Oil & Energy Group safety philosophy states, “We will give top priority to safety and compliance in all of our business activities.” Under this commitment, we are working to achieve zero industrial accidents and injuries by initiating various safety measures and offering safety training for all our employees, including those of our partner companies.

We have also implemented measures at our refineries, plants and stockpiling terminals to prevent accidents and launched an operational reform initiative at our refineries and plants to reduce potential equipment problems.

### Group Safety Policy

Every fiscal year, each of our divisions formulates key targets based on the Group Safety Policy for the implementation of safety activities to prevent accidents and injuries.

#### Group Safety Policy

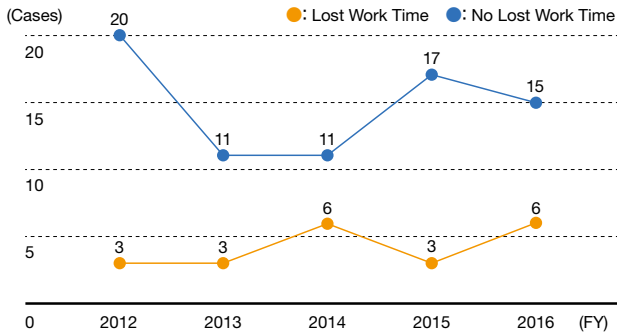
We follow the basic policy outlined below as part of our efforts to prevent injuries and eliminate accidents at our facilities.

1. Thorough compliance with rules
2. Consistent implementation of safety activities
3. Enhancement of crisis management capabilities

## Occurrences of Industrial Injuries

The following graph shows occurrences of industrial injuries at our refineries and plants over the previous fiscal years.

### ● Number of Industrial Injuries per Fiscal Year\*



\*Total incidents at the former JX Nippon Oil & Energy and former TonenGeneral Sekiyu.

## Earthquake Measures for Refineries and Plants

JXTG Nippon Oil & Energy implements various earthquake measures for its refineries and plants, where we handle hazardous materials and high-pressure gases.

### ● Measures to Protect Lives

We are implementing the following measures, with priority given to protecting lives in the event of an earthquake or tsunami.

We have voluntarily implemented seismic reinforcement of our administrative offices and manufacturing unit control rooms. We have also designated evacuation locations and methods in case of an earthquake or tsunami and carry out disaster preparedness training every year.

### ● Measures for Seismic Reinforcement of Facilities

We are implementing the following measures for the seismic reinforcement of equipment and facilities.

For tanks that store hazardous materials, we have completed work on floating-roof tanks that are subject to this requirement. In addition, we plan to complete seismic reinforcement work on our internal floating-roof tanks subject to legislation enacted in fiscal 2011 by the statutory deadline of the end of fiscal 2023.

As for high-pressure gas facilities, we have carried out seismic performance evaluations based on administrative directives and, following the Great East Japan Earthquake, we completed the retrofitting of spherical tanks with braces and are carrying out seismic measures on critical facilities.

### ● Measures to Mitigate Damage from a Disaster

We have installed a system with seismographs at all of our refineries and plants to automatically shut down equipment quickly and safely in the event of an earthquake, depending on its intensity.

Message from the President

About JXTG Nippon Oil &amp; Energy

Management System

CSR Management

Social Report

Environmental Report

- Safety Initiatives

Engagement with Customers

Engagement with Employees

Engagement with Business Partners

Engagement with Civil Society

## Measures to Cope with Accidents and Problems

In the petroleum and petrochemical industry, accidents involving damage to facilities can significantly impact site operations and the surrounding areas. We therefore implement the following measures.

### ● Disaster Prevention Facilities

We have installed a wide range of disaster prevention facilities and developed measures at our refineries, plants and stockpiling terminals in preparation for potential accidents or disasters.

#### Oil Spill Countermeasures

We are able to respond quickly to oil leaks on land or at sea. We have multiple oil dikes surrounding our storage tanks and systems in place to prevent leaks from spreading offsite. In addition, we have oil fences and recovery vessels in place to respond to oil leaks at sea.

#### Fire Countermeasures

Refineries that handle dangerous substances or high-pressure gas also have large ladder trucks with hazardous material response capabilities, compressed air foam system (CAFS) tankers, high capacity water cannons, foam extinguishing systems, sprinkler systems, and large extinguishers onsite. These facilities also have disaster response vessels with firefighting capabilities to respond to any accident or disaster at sea.

#### Mutual Assistance System for Refineries

We have established a system with emergency response measures to enable organized support within the JXTG Nippon Oil & Energy Group in situations where one or more refineries are damaged in a major earthquake. This system ensures the execution of a swift and agile response.

### ● Disaster Drills

#### Comprehensive Disaster Drills

We regularly implement comprehensive disaster drills for our own disaster response organizations to ensure that we can respond in a quick and agile manner should an actual disaster occur. We also hold other drills, including joint disaster preparedness drills involving local fire departments and disaster response organizations from nearby companies.

#### Enhancement of Crisis Management Capabilities and Collaboration with Local Communities: Initiatives at the JX Kiire Terminal

The Kiire Terminal receives and ships crude oil as the Group's front line storage terminal in Japan. It serves as a hub at the terminus of an "oil road" that connects oil producing countries to our refineries, with some 500 oil tankers entering and departing its port every year. We focus a great deal of effort on ensuring safety both at sea and on land to maintain the smooth flow of traffic on this road.

We hold more than 300 drills each year to prepare for potential disasters and guarantee safety under the slogan "Safety is never guaranteed. Unless we give at least 120 percent each and every time, our drills will make no difference in the event of an actual disaster." These drills are held on a standalone basis at the Kiire Terminal and jointly with local governments, agencies and community members. Going forward, we will continue to strengthen collaboration with affiliated organs and local community members to establish a system that ensures we can respond immediately in the event of a disaster.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
<b>Safety Initiatives</b>	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

### Firefighting Skills Competitions

Our employees proactively take part in firefighting skills competitions organized by fire departments to maintain and enhance their abilities as part of their commitment to preparedness in the event of an accident or disaster.



Skills competition at the Negishi Refinery

### Observation of Firefighting Drills

Employees in charge of the initial response to a disaster visit the Maritime Disaster Prevention Center to observe firefighting training drills for industrial complexes. During their visit, they learn about initial response and firefighting strategies.



Drill for ICS (Incident Command System) operation to prepare for major oil spills

### Communications Training

JXTG Nippon Oil & Energy Group refineries, plants and stockpiling terminals regularly hold drills conducted using real-time simulations as training in the appropriate disclosure of information to the media and stakeholders on changing conditions following an accident or disaster.

During communications training, employees act as reporters or local community members to prepare our response team to handle telephone inquiries and press conferences in the event of a disaster. The training helps us to identify challenges and take steps to make improvements prior to an actual accident or disaster.



Communications training

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
● <b>Safety Initiatives</b>	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

### ● Response to the Great East Japan Earthquake

Our initial focus immediately following the Great East Japan Earthquake of 2011 was to confirm the safety of people in the affected areas. We utilized our safety confirmation system to check on employees and their families, and disseminated information from the company as needed.

We also responded appropriately to requests from governmental agencies and industry organizations such as the Petroleum Association of Japan. In addition, we formed individual teams under the Emergency Support Group at our head office to handle the transport of petroleum products to disaster-stricken areas, set up a temporary service station, provided some petroleum products free of charge and instituted electricity conservation measures at all of our business sites, including offices.


When the Kumamoto Earthquake occurred in April 2016, we utilized our experience from the Great East Japan Earthquake to promptly begin efforts to supply oil products to the affected areas, along with other oil companies.

### ● Preventing Crime at Refineries

At the entrances to our refineries, we conduct stringent security checks to avoid the risk of allowing entry to suspicious individuals.

## ◆ Safety Initiatives at Refineries and Plants

Specific information on safety initiatives at each refinery and plant is available in Japanese on the following webpage.

 JXTG Nippon Oil & Energy Business Sites

(<https://www.noe.jxtg-group.co.jp/company/about/branch/>) (available only in Japanese)

### Future Initiatives on the Fire Incidents at Our Wakayama Refinery

In response to the fires that broke out from a tank on January 18, 2017 and from lubricant manufacturing equipment on January 22 at our Wakayama Refinery\*, we set up an Accident Investigation Committee, which included outside experts, on February 10. After three months of deliberations, the committee submitted an accident report that was in turn delivered to the Ministry of Economy, Trade and Industry in May 2017.

We have subsequently received rigorous guidance from the ministry concerning the above accidents at the Wakayama Refinery as well as the circumstances surrounding the occurrence of accidents. The gravity of the matter has been fully recognized not only by the refinery but also by JXTG Nippon Oil & Energy as a whole, and we are engaged in an ongoing effort to implement thorough preventive measures and improvements in our safety management system. Once again, we offer our sincere apologies to our stakeholders for the concern and inconvenience caused by this incident.

\*TonenGeneral Sekiyu's Wakayama Refinery as of the time of the accident.



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	<b>Engagement with Customers</b>	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

# Engagement with Customers

**JXTG Nippon Oil & Energy strives to attain customer satisfaction and trust by developing and delivering innovative technologies and valuable products and services that contribute to the resolution of social issues in and outside of Japan.**

“Focus on Customers” is one of the core values upheld by the JXTG Group Philosophy.

The newly created JXTG Nippon Oil & Energy aspires to develop into a company that supports the day-to-day lives of its customers, and vital to this is the consistent provision of quality, which assures customers they can rely on our products. That is, we must deliver satisfaction and peace of mind to customers through quality.

We will unite across the company to fulfill our mission of providing a stable supply of valued products and services to win the complete trust of our customers.

**Atsushi Inoue**  
General Manager  
Quality Assurance Department



## F u n d a m e n t a l A p p r o a c h

JXTG Nippon Oil & Energy constantly infuses its business activities with new ideas, and to act as a trusted as well as indispensable partner for our customers, we continuously strive to improve the quality of our products and services to fulfill society's expectations of us.

### JXTG Nippon Oil & Energy Group Quality Policy

#### JXTG Nippon Oil & Energy Group Quality Policy

We will seek to attain the trust and satisfaction of our customers by always adopting their perspective and adhering to the following practices.

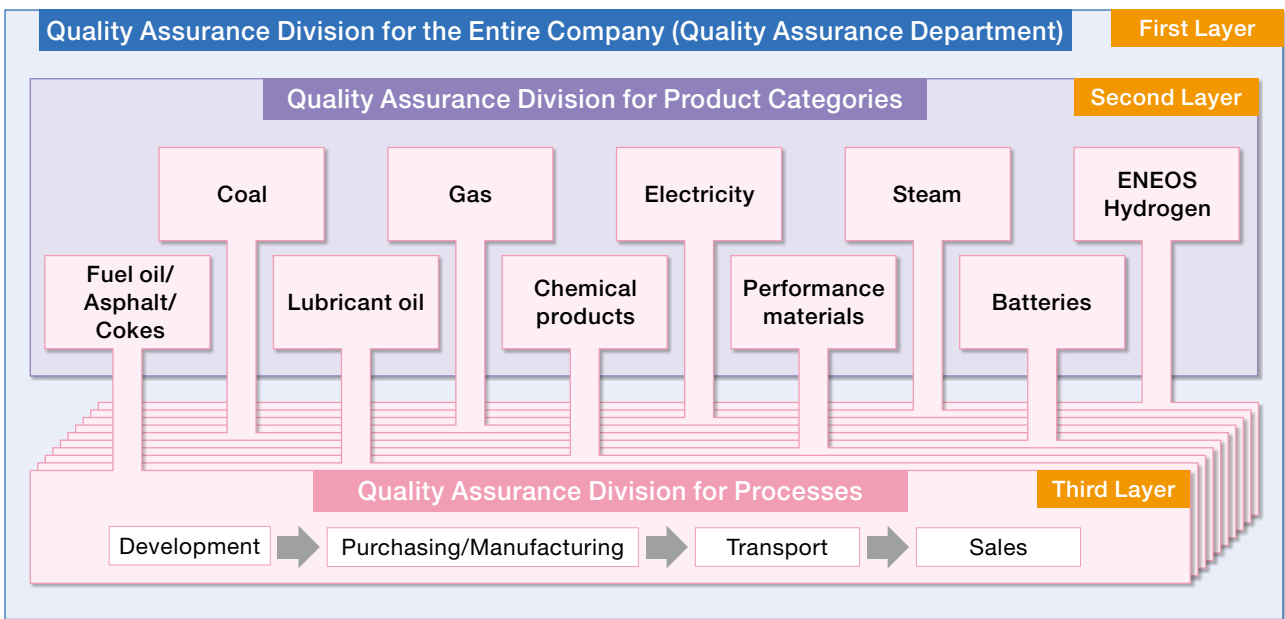
- 1. Providing products and services that offer safety and security in terms of quality.**
- 2. Continuously maintaining and enhancing the quality of our products and services.**
- 3. Providing customers with accurate information that is easy to understand.**

## Quality Assurance Promotion System

### Quality Assurance System

Guided by our Quality Policy, the Quality Assurance Department spearheads the activities of the entire company by setting up a quality assurance section for each product category to implement quality control for the respective processes involved.

#### JXTG Nippon Oil & Energy Quality Assurance System



### Initiatives for Quality Control

#### Initiatives at Manufacturing Sites

The JXTG Nippon Oil & Energy Group seeks to eliminate quality-related complaints and issues by implementing thorough preventive activities at its refineries and plants.

#### 1. Standardization of quality control and assurance procedures

While all of our refineries and plants have obtained ISO 9001 certification, we have also developed our own Quality Management System that further enhances ISO 9001 by applying requirements focused on the manufacturing of petroleum and petrochemical products, and this system is being deployed at each site. One function of the system is to assess quality control risks and reduce these risks by implementing measures that utilize knowledge and best practices accumulated over many years, thereby realizing highly effective quality control to prevent quality issues.

We also utilize certification standards to maintain and enhance the technical skills of testing and analysis staff and gauge the level of their abilities.

#### 2. Information sharing on complaints and quality issues

Among our refineries and plants, we share a database of complaints and quality-related issues that have arisen at these facilities in order to prevent recurrence.

#### 3. Inspection of the quality management system

We inspect the quality management system at our refineries and plants to identify strengths and weaknesses and introduce improvements by sharing this information. We also conduct special process inspections when installing new equipment in order to reduce the risk of quality issues.

[Message from the President](#)
[About JXTG Nippon Oil & Energy](#)
[Management System](#)
[CSR Management](#)
[Social Report](#)
[Environmental Report](#)
[Safety Initiatives](#)
[Engagement with Customers](#)
[Engagement with Employees](#)
[Engagement with Business Partners](#)
[Engagement with Civil Society](#)

### Initiatives at Distribution Sites

We cooperate with transport companies to provide quality control across the entire process, from loading to unloading, to ensure that our products are transported safely and without error.

Our initiatives to prevent incidents include measures for “hardware” aspects, such as installing a high-tech system\* for preventing oils from mixing on tank trucks carrying white oils (gasoline, heating oil and gas oil), as well as measures for the “human” aspects, such as having both the customer and driver present at the delivery point during unloading. We also seek to prevent transport issues associated with trucks carrying lubricants by having the customer and driver jointly confirm recipient, product name, packaging, quantity and appearance at the time of delivery.

In addition, we ensure compliance with procedures and safe driving by establishing and developing educational manuals and other materials for drivers.

\*This high-tech system provides overall management for preventing oil mixture incidents by conveying information on oil type across the entire process, from loading at the oil terminal to unloading at the service stations and end-users. Oil type is specified using a key attached to the unloading tank, which, when connected to the truck, transmits a signal indicating the oil type, which is in turn identified by a sensor on the tank truck. Once the oil type has been matched, unloading begins.

### Initiatives at Points of Sale

At our service stations, where products are delivered to customers, we cooperate with service station managers to enhance quality control and customer satisfaction.

We ensure product quality by conducting quality control using service station safety inspection logs to inspect facilities, including meters and underground tanks, on a daily, weekly and monthly basis.

Moreover, we seek to enhance the knowledge and skills of service station staff by using an educational video on measures for preventing the mixture of water with products and the Service Station Quality Control Manual to prepare workers for unexpected problems and enable them to respond quickly and accurately.

## Initiatives for Enhancing Quality

### ● Customer Satisfaction and Quality Month (FY2016)

The JXTG Nippon Oil & Energy Group has set each November as “Customer Satisfaction and Quality Month” as part of our commitment to maintain heightened company-wide awareness toward customer satisfaction and quality.

#### Theme for Fiscal 2016

**Let Each of Us Strengthen Customer Trust by Rising to New Challenges with an Eye on the Future**

#### Fiscal 2016 Slogan

**Follow Proper Procedures and Rules to Provide Reliable Quality and Win Trust**

**(Makoto Suzuki, Kamigoto Oil Storage Co., Ltd.)**

We solicited slogans from employees of the JXTG Nippon Oil & Energy Group and its partner companies, and for fiscal 2016 we selected those shown above from among 11,676 entries.

### ● Product Quality Improvement Program

To ensure that our products satisfy equipment specifications and supply high-quality products that meet customer needs, the product technology, manufacturing, supply and demand, logistics and sales sections of divisions responsible for each product collaborate to improve product quality and work on product development programs.

[Message from the President](#)
[About JXTG Nippon Oil & Energy](#)
[Management System](#)
[CSR Management](#)
[Social Report](#)
[Environmental Report](#)
[Safety Initiatives](#)
[Engagement with Customers](#)
[Engagement with Employees](#)
[Engagement with Business Partners](#)
[Engagement with Civil Society](#)

## Initiatives for the Customer Service Center

### Customer Service Center Initiatives

JXTG Nippon Oil & Energy receives feedback from its valued customers through the JXTG Customer Service Center. The center responds to inquiries with clear, courteous explanations and addresses complaints honestly and accurately.

Between April 2016 and March 2017, the ENEOS Customer Service Center of the former JX Nippon Oil & Energy received 22,407 inquiries, with customer service center representatives answering questions on a wide range of topics, from ENEOS credit card program benefits to our products.

### Responding to Customer Needs

Customer feedback received by the JXTG Customer Service Center is shared with all related divisions to ensure fast and accurate responses. In determining product quality design and specifications, we draw upon a rich database of our worldwide experience and knowledge. We conduct thorough evaluations to ensure that each product satisfies legal requirements and industry standards, such as the Japanese Industrial Standards (JIS), as well as the specifications in our customer contracts, to prevent any usage problems. These practices enable us to supply highly reliable, high-quality products.

## Initiatives for Legal Compliance

To protect the health and safety of everyone involved with our products, as well as the environment, we exercise complete control of the chemical substances contained in our products. We thoroughly implement our legal monitoring and compliance systems to ensure that we satisfy all legal requirements applicable to our products and chemical substances.

### Guidelines on Chemical Substances in Our Products and Control of Chemical Substances

JXTG Nippon Oil & Energy has voluntarily established standards for managing the chemical substances used in its products.

We have specified prohibited or obsolete substances (PCBs, asbestos, lead compounds, etc.) and substances that require monitoring (metallic compounds and VOCs such as xylene) to better manage our use of hazardous substances in products that could negatively affect the environment or people's health. Through these efforts we are working to mitigate any harmful effects attributed to chemical substances. Furthermore, we provide the necessary safety information to customers and anyone else who may come into contact with our products by distributing safety data sheets (SDSs) to them. In addition, we immediately revise our SDSs in the event of any new finding associated with product hazards, such as toxicity, or environmental impact.

### GHS Compliance

GHS\* is a worldwide system that standardizes the categorization and labeling of threat levels associated with specific chemical products. It identifies inherent dangers posed by chemical substances and compounds and conveys the information to the consumers and workers handling these chemicals. This safeguards health and safety while also helping to protect the environment.

Following the revisions to Japan's Industrial Safety and Health Act, JXTG Nippon Oil & Energy ensures that container labels and the SDS for products stipulated in this law are fully compliant with GHS. We are also fully compliant with requirements for two-colored pictorial symbols on containers under JIS Z 7253.

\*The Globally Harmonized System of Classification and Labeling of Chemicals

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	<b>Engagement with Customers</b>	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

● **EU REACH Compliance**

REACH\*1 was enacted in the European Union (EU) in June 2007 for the regulation of chemical substances to protect human health and the natural environment. It requires that companies register safety performance data for nearly every chemical substance that was produced in or imported to the EU with a volume of more than one tonne per year.

JXTG Nippon Oil & Energy completed preliminary registration of all chemical substances that it will likely export to the EU in 2008, and has continued with full registration since 2010. We plan to complete the process by the registration deadline of May 2018.

Furthermore, we are responding appropriately to chemical substance regulations in other regions as well, such as South Korea’s K-REACH\*2.

\*1: Registration, Evaluation, Authorization and Restriction of Chemicals

\*2: The Act on Registration and Evaluation of Chemicals of Korea

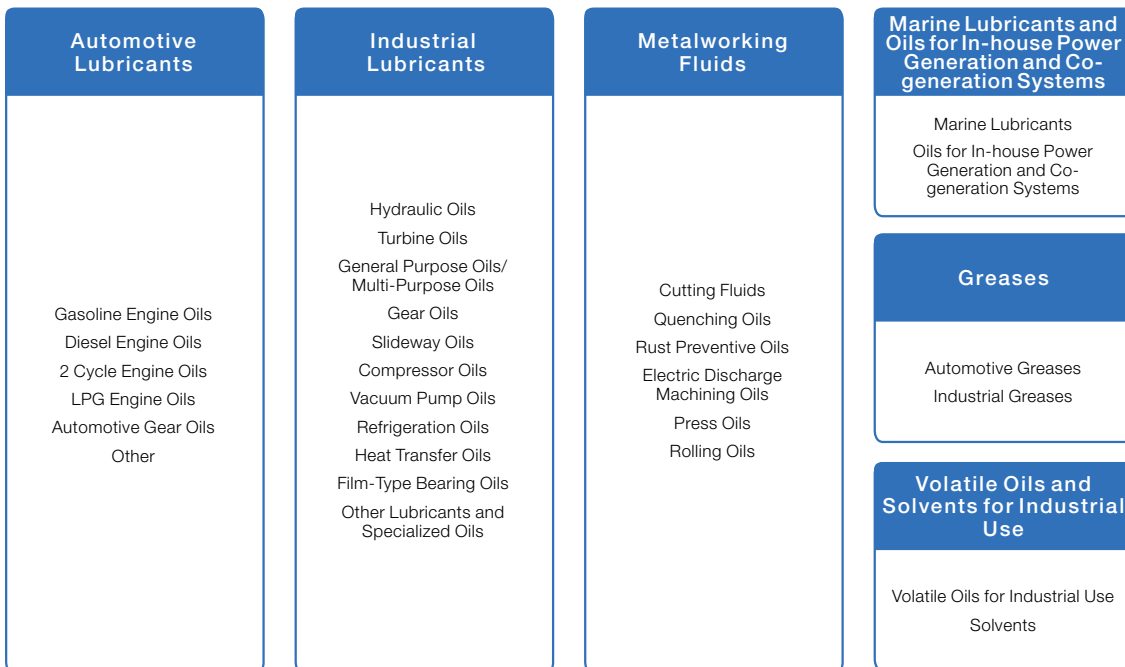
**Providing Products and Services Beneficial to Our Customers**

● **Lubricants**

Lubricants play a number of roles, including friction reduction, sealing, cooling and rust prevention. Their use therefore reduces wear and tear on machines and engines and limits energy loss.

From environmentally-friendly products to racing oils, JXTG Nippon Oil & Energy offers engine oils and other automotive lubricants that bring out the best performance of automobiles, and environmentally-friendly industrial lubricants that save energy and last longer. We will continue to develop high-performance, high value-added lubricants that meet diverse needs.

● **Lubricants Handled by JXTG Nippon Oil & Energy**



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	<b>Engagement with Customers</b>	Engagement with Employees	Engagement with Business Partners	Engagement with Civil Society	

● Petrochemical Products and High Performance Materials

Many of the things that support our way of life and the economy, from plastics and textiles to rubber, paint and detergents, are made from petrochemical products.

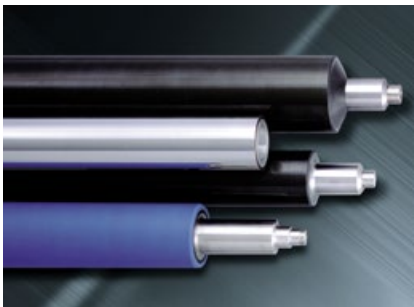
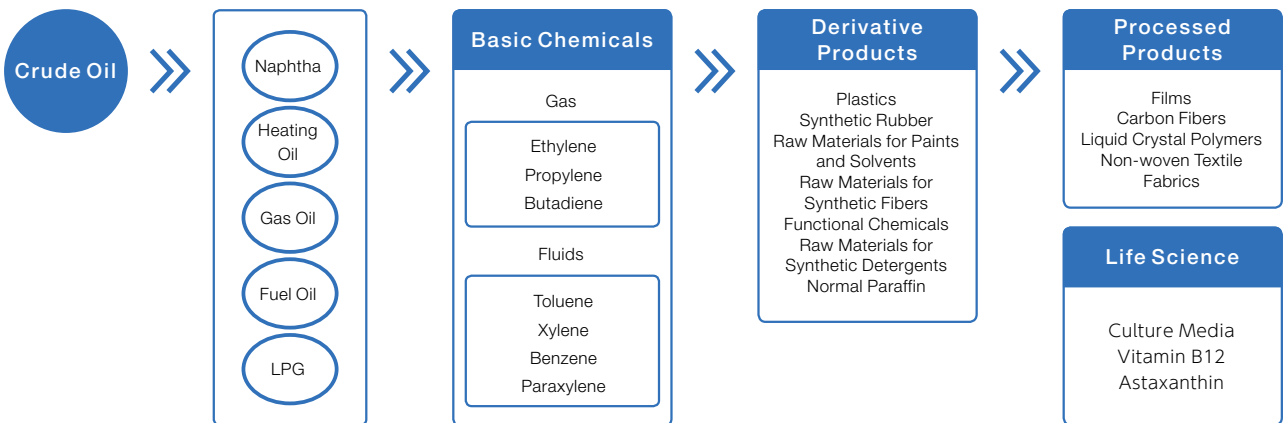
JXTG Nippon Oil & Energy’s petrochemicals division produces basic chemicals such as ethylene, which serves as a building block for highly versatile products, as well as high value-added specialty chemicals, while the High Performance Materials Company manufactures materials that are processed to offer unique qualities and functions required by customers.

In recent years, demand for basic chemicals has skyrocketed, especially in the high-growth markets of Asia. JXTG Nippon Oil & Energy has sought to meet this demand by constructing a paraxylene plant in South Korea in 2014 and began commercial production in June of that year. Paraxylene is used to make polyester, a material widely found in our daily lives with end uses that include apparel and PET bottles.

The latest business integration has bolstered our production capacity and number of production bases, enabling us to better serve customer needs.

JXTG Nippon Oil & Energy is working to build a global supply system while pursuing new possibilities for petroleum to meet the broad range of needs in our society and leveraging our long-standing technological expertise developed through the manufacturing of petrochemicals.

● Petrochemical Products and High Performance Materials



Industrial rolls using carbon fiber



Optical films that enhance liquid crystal display quality

Customer-centric Research & Development

As a comprehensive energy company, JXTG Nippon Oil & Energy is working to create new sources of energy as well as research and develop products and fuels that make life better in order to fulfill the needs of both customers and society alike.

[WEB](#) R&D

([https://www.no.ejxtg-group.co.jp/english/company/research\\_and\\_development/index.html](https://www.no.ejxtg-group.co.jp/english/company/research_and_development/index.html))

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

# Engagement with Employees

## Creating Workplaces for a Diverse Workforce and Work Styles

Our employees are the key driver behind our CSR activities and are also our most important stakeholders. To enhance its corporate vitality, JXTG Nippon Oil & Energy recognizes that it must provide workplace environments where each and every employee can fully utilize and further develop their skills, regardless of gender, age, nationality or when and how they joined the company. To that end, we are creating workplaces suited to the greater diversity of our workforce and work styles of today.

**Masaaki Suehisa**  
Executive Officer and General Manager  
Human Resources Department



## Fundamental Approach

To achieve continuous growth and development through a united effort between the company and employees under the JXTG Group Philosophy, we will design and execute a sustainable personnel system and personnel measures based on the following Basic Personnel Policy.

### Basic Personnel Policy

- We will respect diversity and ensure that all employees can demonstrate their full abilities.
- We will nurture employees who will consistently take on global challenges with a creative and innovative spirit.
- We will offer fair and equitable treatment, based on ability and performance, that is acceptable to employees.
- We will establish an environment in which employees can maintain a high level of motivation and productivity.

## Human Rights Initiatives

### Respect for Human Rights

JXTG Nippon Oil & Energy’s approach to human rights is expressed in the JXTG Group Philosophy and Code of Conduct. High ethical standards is a core value of the Group Philosophy, which declares that “based on our core principles of integrity and fairness, we conduct all of our business activities in accordance with our high ethical standards.” In the Code of Conduct, we pledge to respect diversity, to not violate human rights through our business activities, and to not tolerate discrimination or harassment in any form. Accordingly, JXTG Nippon Oil & Energy places respect for human rights at the foundation of its management and strives to fulfill its responsibility as a member of society by raising awareness toward addressing human rights issues.

### Encouragement of Human Rights Awareness

JXTG Nippon Oil & Energy is working to eliminate all forms of discrimination by educating employees to increase their knowledge and strengthen their sensitivity to enable them recognize discrimination and harassment. We organize rank-based training and e-learning for all employees and also solicit human rights slogans from employees and their families. Furthermore, we have established the Human Rights Awareness Promotion Contact Meeting, comprising 21 companies of the JXTG Nippon Oil & Energy Group, to increase human rights awareness throughout the Group.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

● **Initiatives for Enhancing Human Rights Awareness**

**Sign Language Classes**

Although there are many ways to communicate with someone who has a hearing disability, such as a memo, verbal language or email, sign language is a convenient option even if you can only do a little. At our head office and certain business sites, employees with hearing disabilities teach sign language in classes after work for many employees. Many signs have been designed in ways that aid memorization. For example, for the name Sasaki, a gesture is used that looks like the person is carrying a sword on their back to mimic the image of famous Japanese swordsman Kojiro Sasaki. For the name Kato, a gesture is used where both hands appear to be holding a spear, based on the image for Japanese daimyo Kiyomasa Kato.

The photograph shows one of the sign language classes at our head office. The classes have been held continually at our head office for more than a decade, and they have continued for this long because they are needed for communication during actual work situations, they offer an easy-to-understand curriculum created by the employee instructors, and they are fun. Another reason that cannot be overlooked is that previous supervisors set an example that was worth following. That is, the proactive stance of our supervisors has played an important role in making these classes possible.



Sign language class

**Experiencing Blind Soccer as Part of Training**

We incorporate blind soccer into the training program for entry-level employees. Playing blindfolded using a special soccer ball that rings gives the participants an idea of the sensory experience of a blind person, thereby heightening their understanding of diversity. They also learn communicate skills for team building. For these reasons, we will continue to include this initiative in our training program.



Experiencing blind soccer during training

● **Human Rights Consultation Center**

JXTG Nippon Oil & Energy operates a Human Rights Consultation Center to receive reports from employees who have experienced or witnessed harassment as well as for inquiries about what constitutes harassment in the workplace. As necessary, the center takes preliminary action such as alerting people in an effort to keep the working environment free of harassment and human rights violations.

● **Consideration for Employees with Disabilities**

Persons with various disabilities are employed at JXTG Nippon Oil & Energy. We are making improvements to the workplace environment so that these employees can do their jobs as comfortably and efficiently as other employees. Setting up consultation centers at each business site, providing simultaneous sign language interpreters for lectures and designating persons to assist in the event of emergency evacuation are just a few of our efforts to meet the workplace needs of employees with disabilities.



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

## Employee Composition

### Breakdown of Employees (as of April 1, 2017)

#### Number of Employees

Regular employees			Non-regular employees	Seconded from other companies
Domestic	Overseas	Total		
8,003	34	8,037	925	175

#### Breakdown of Regular Employees

##### By Gender

	Number of employees	Average number of years of service	Number of employees in managerial positions
Male	7,184	17.9	2,344
Female	853	18.5	61

##### By Age Group

Age group				
Teens	20s	30s	40s	50s
181	2,017	1,310	2,629	1,900

## Providing Opportunities for Employees to Shine

We provide opportunities for each and every employee to utilize their skills and have developed the following programs to help our human resources thrive.

### Open Entry Program

In our open entry program, the wishes of employees who express a strong desire and specific reasons for particular job assignments are reflected in personnel transfers.

### In-house Recruitment Program

Our in-house recruitment program enables employees to apply for positions that open up for new business fields and projects.

### Job Rotation System

We provide opportunities for inter-department or inter-division personnel transfers in order to develop junior employees and maximize our human resources.

## Training Programs for Human Resource Development

JXTG Nippon Oil & Energy considers human resource development to be one of management’s most important tasks. As such, we offer a broad range of training programs under the basic policy on human resource development outlined below.

### Training System

Our training system consists of the following four categories.

Category	Content	Participants
Basic Training	Mandatory training based on the career stage of each employee. The objective is to understand and acquire the abilities, knowledge and thought processes required for each career stage or qualification.	All employees who fall under the applicable category or rank
Leadership Training	Training for the development of candidates for leadership positions by teaching them the necessary thought processes and skills for top management and leaders of organizations or businesses.	Persons selected by the company
Step Up Training	Programs for upgrading skills and careers. Participants study in Japan or overseas to acquire advanced knowledge and skills as well as to broaden their views and experience through contact with cultures other than their own.	Selected from self-appointed or recommended candidates
Personal Development Programs	Programs intended for personal growth, with participation by employees on a voluntary basis to reinforce their strengths or compensate for their weaknesses as required in their daily work.	Voluntary basis

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

● **Global Business Skills Training**

As part of our Basic Training program, we offer Global Business Skills Training to all employees who are university graduates and in their fourth to fifth year at the company. Participants are dispatched to various countries in Southeast Asia for about a month to conduct marketing or attend personalized English classes according to their language proficiency. The program is intended to strengthen language skills as well as employees' ability to adapt to cultural differences with an eye on the future expansion of our overseas business.



Employee participating in Global Business Skills Training

**VOICE**



**Kazuma Suzuki**  
Aviation Fuel Group  
Industrial Energy Sales  
Department

**Getting a Real Sense of Diversity by Experiencing Different Cultures**

After completing a three-week language course in the Philippines, I went to Malaysia to conduct fieldwork for a week with a local university student who acted as my buddy to support the training. My current job involves selling jet fuel primarily to airline companies in Taiwan and South Korea, and since all communication with overseas customers takes place in English, I strongly believe in the importance of this training program, through which I also learned to be comfortable being different from others. In an environment where diverse languages, religions and values coexist, it is only natural that you differ from those around you, and I was able to develop this perception by gaining firsthand experience of the different cultures, peoples and environment in a foreign country. Looking ahead, I intend to continue studying at a language school to keep up with my buddy, who was fluent in English, Chinese and Malay.

**Personnel Evaluation System**

Employees are the key driver behind any company's business activities and as such they need to be able to develop and fully utilize their skills in the workplace.

JXTG Nippon Oil & Energy has developed remuneration and personnel evaluation systems in order to help develop and energize its human resources.

**Hiring Activities**

We provide information to prospective employees through our website, which includes the type of people we are looking to hire and the fields in which they can work.

We use a fair selection process that focuses on the aspirations and motivation of prospective employees rather than gender or other personal qualities. Moreover, we conduct interviews in a professional manner to ensure that both the company and the prospective employee fully understand one another.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

## Promoting Diversity and Inclusion

JXTG Nippon Oil & Energy promotes diversity and inclusion in order to transform itself into an organization that incorporates more diverse and flexible thinking to meet the broad-ranging needs of customers.

### Promoting Career Opportunities for Women

We provide the necessary support to ensure female employees are motivated, think about their future careers, and can continuously contribute as members of our workforce. At the same time, changing the way our employees think and transforming our corporate culture are also pressing needs. The foundation of these efforts can be found in changing the way we think about men and women working together and establishing work styles through which employees are able to fully utilize the limited time they spend at work.

Since fiscal 2014, we have increased the ratio of women hired out of university or high school, used training and other awareness-raising activities to change our mindsets, supported the formation of a female employee network, and reviewed our work styles and methods to better accommodate the needs of employees whose time is constrained by childcare or other personal obligations.

In accordance with the Act on Promotion of Women’s Participation and Advancement in the Workplace enacted on April 1, 2016, we created the following JXTG Nippon Oil & Energy Action Plan for the Advancement of Women in the Workplace and are now implementing measures toward fulfilling this action plan.

#### Action Plan for the Advancement of Women in the Workplace

We formulated the following plan to support women’s advancement in the workplace and create an environment in which all employees can advance their careers by fully demonstrating their abilities.

<b>1. Period covered</b>	April 1, 2017 to March 31, 2020 (3 years)	
<b>2. Goals</b>	(1) Increase the ratio of women among university graduate hires to 25% or more in fiscal 2020 (2) Develop the infrastructure and human aspects toward managerial training for women and promoting women to managerial posts	
<b>3. Specific measures</b>	<b>Measure 1</b>	Publicize our initiatives for supporting women’s advancement in the workplace in our hiring activities with the goal of increasing the number of female applicants. - Disclose our corporate initiatives for supporting women’s advancement in the workplace and data concerning the current use of various related programs via the corporate website (including the recruiting website). (FY2017 to FY2019) - Organize briefings for female university students, and consider and implement measures related to hiring activities, such as disseminating PR tools. (FY2017 to FY2019)
	<b>Measure 2</b>	Create an environment in which female employees can fully demonstrate their abilities and develop human resources regardless of gender. - Conduct activities to raise company-wide awareness of support for women’s advancement in the workplace, including education for supervisors concerning equal job assignments for men and women, and allocation of work that does not affect changes in work styles caused by life events. (FY2017 to FY2019) - Consider training menus for before, during and after childcare leave to follow up on employees taking childcare leave. (FY2017) - Support information sharing and networking among employees to alleviate concerns about continuation of careers. (FY2017 to FY2019) - Change the corporate culture from one based on “work styles that enable employees to sacrifice their time for the company at any time” to “highly productive work styles that make effective use of limited time.” (FY2017 to FY2019)
	<b>Measure 3</b>	Create an environment that better accommodates women’s needs in divisions and workplaces that currently have few female employees in order to expand job categories for women. - Develop infrastructure (restrooms, introduction of tools that are easier to use for women) toward assigning and increasing the number of women as operators of manufacturing equipment. (FY2017 to FY2019) - Identify divisions with a low ratio of women and consider measures for assigning more female employees. (FY2017 to FY2019)

### Promoting Career Opportunities for the Disabled

JXTG Nippon Oil & Energy is working to achieve an employment rate of persons with disabilities that exceeds the statutory employment rate of 2.0%. As of June 1, 2017, our employment rate for persons with disabilities was 2.16%.

From the perspective of achieving diversity and inclusion in the workplace, we consider a disability to be a personal trait of an employee. Instead of collectively assigning persons with disabilities to a specific workplace, we seek to help them advance their careers and invigorate workplaces by assigning operations that match their individual personalities and abilities.

We have positioned professional staff such as job coaches and consultants to assist persons with disabilities in the workplace, and we hold seminars to support employees with disabilities while encouraging understanding in the workplace. In addition, as part of our efforts to achieve workplace diversity and inclusion, training programs for entry-level employees feature blind soccer, while several departments also offer sign language classes.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

● **Re-employment Program for Retired Workers**

We offer a re-employment program for retired workers that have the desire and motivation to continue working. The program provides these employees another opportunity to share their valuable knowledge, skills and experience with the company.

● **Number of Employees Re-Hired after Retirement in FY2016**

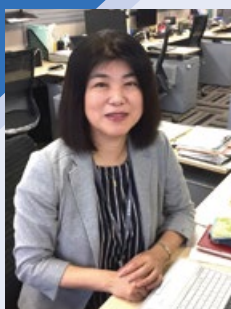
	Former JX Nippon Oil & Energy	Former TonenGeneral Group*
Number of retired workers newly re-hired	283	59

\*Total for TonenGeneral Sekiyu K.K., EMG Marketing Godo Kaisha, and Tonen Chemical Corporation

● **Re-employment Program for Workers who Resigned to Accompany a Spouse on an Overseas Assignment**

As part of our efforts to promote the advancement of women in the workplace, we introduced a new program in which employees who resign to accompany a spouse on an overseas assignment can register prior to their resignation in order to be rehired at a later date at their request within a five-year period from resignation. This program was introduced in order to provide opportunities for these employees to work with the company again after returning to Japan, where they can continue their career advancement (gender is not considered in the requirements for using this program).

**VOICE**



**Yoko Morita**  
Group Manager  
Lubricants Quality Assurance Group  
Lubricants Business Planning Department  
Lubricants Company

**Wide-ranging Childcare Assistance Programs Fulfilling Work Responsibilities While Making Use of the Programs to Maintain an Agreeable Environment for All**

The lubricants business offers diverse products internationally, and quality assurance is an extremely rewarding job. While I do face difficult decisions as a manager, it can be exciting at the same time, and I enjoy each day at work. I have been with the company for 26 years, and now that my son is in university, I am glad I chose to continue my career.

There were few career-track women when I joined the company, at a time when we were told women needed to work three times as hard as men to succeed. However, I tried not to be overly conscious of being a woman and simply thought of it as being part of who I was.

Today it is normal to see many women pursuing their careers and it is reassuring to see mothers working outside the home while raising two or three children. I think the broadening of our childcare assistance programs opened up diverse career paths for female employees. These include the extension of childcare leave to up to two years and the provision of special nursing care leave to care for children when they are ill.

Looking back on my own experience, I received significant support from my supervisor and colleagues during the busiest period in caring for my child. Our company has introduced caregiver assistance programs and offers a broad range of options for individual work styles, but these systems only work with the understanding of the workplace. The important thing is to not just enjoy your own rights, but also to fulfill your own responsibilities. A willingness to support one another fosters a feeling of goodwill in the workplace.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

## Work-Life Management

JXTG Nippon Oil & Energy recognizes how important maintaining a healthy work-life balance is to employees and has systems in place to support them.

### ● Flextime Program

We offer a flextime program that allows employees to choose the times they start and end work as long as they are present for core work hours.

### ● Discretionary Labor System

JXTG Nippon Oil & Energy uses a discretionary labor system for employees engaged in corporate planning and R&D at its head office and Central Technical Research Laboratory. This is because in searching for options that can be applied to the diverse individual needs of today's employees, we found that staff engaged in these fields should be afforded the discretion to determine how they execute their duties and allocate their time.

We also offer a flextime program, shortened working hours program, and childcare and caregiver assistance programs to accommodate the increasingly diverse individual requirements of our employees.

### ● Shortened Working Hours System

Employees who are pregnant, raising a child or acting as a caregiver as well as employees with a disability can select work days of 5.5, 6.0 or 6.5 hours.

### ● Childcare Assistance Programs

We offer a parental leave program, childcare leave, nursing care leave to care for children, a shortened working hours program and a telecommuting program to help employees achieve work-life balance. We have also introduced a new initiative aimed at encouraging all eligible employees, including men, to take childcare leave in an effort to ensure all workplaces enable those eligible to take this type of leave systematically.

#### ● Utilization of Programs in FY2016

	Former JX Nippon Oil & Energy	Former TonenGeneral Group <sup>*1</sup>
Total number of employees who took childcare leave	129	25
Number of men	96	11
Percentage of employees who returned to work after childbirth and childcare leave <sup>*2</sup>	100%	100%
Retention rate 12 months after returning to work <sup>*3</sup>	98.80%	100%
Number of employees using the telecommuting program while caring for children <sup>*4</sup>	20%	

\*1 Total for TonenGeneral Sekiyu K.K., EMG Marketing Godo Kaisha, and Tonen Chemical Corporation  
 \*2 Percentage of employees who returned to work in FY2016  
 \*3 Retention rate for FY2015  
 \*4 As of July 1, 2017

### ● Caregiver Assistance Programs

We provide a caregiver leave program, days off for caregivers, a shortened working hours program and a telecommuting program to help employees balance their professional and private lives.

#### ● Employees Who Took Caregiver Leave in FY2016

	Former JX Nippon Oil & Energy	Former TonenGeneral Group <sup>*1</sup>
Number of employees who took caregiver leave	2	2
Number of employees using the telecommuting program while caring for family <sup>*2</sup>	1	

\*1 Total for TonenGeneral Sekiyu K.K., EMG Marketing Godo Kaisha, and Tonen Chemical Corporation  
 \*2 As of July 1, 2017

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

● **Proper Management of Working Hours**

JXTG Nippon Oil & Energy is committed to eliminating unpaid work. We strive to properly manage employee working hours and have established a system that correctly monitors these hours.

● **Encouraging Employees to Take Annual Paid Leave**

1. First consecutive leave: Employees are encouraged to take five consecutive days of annual paid leave
2. Second consecutive leave: Employees are encouraged to take three consecutive days of annual paid leave
3. Two days per year are set to encourage employees to take annual paid leave
4. Employees are given paid leave on a day they choose
5. Employees draw up plans to take annual paid leave
6. Managers are encouraged to take the lead in taking paid leave

● **Employees Who Took Annual Paid Leave in FY2016**

	Former JX Nippon Oil & Energy	Former TonenGeneral Group <sup>*1</sup>
Number of paid leave days granted	19.5 days	22.6 days
Number of paid leave days taken	15.6 days	21.7 days
Percentage of paid leave taken	80.00%	95.90%

\*1 Total for TonenGeneral Sekiyu K.K., EMG Marketing Godo Kaisha, and Tonen Chemical Corporation

● **The “Goodbye Overtime – Action 8” Initiative**

We have instituted the “Goodbye Overtime – Action 8” initiative in order to reduce the total working hours of our employees. The purpose of the initiative is to make it possible for employees to maximize their skill sets and maintain interest in their work by achieving a high degree of work-life balance. In turn, this improves the company’s productivity and fosters a positive relationship between the company and its employees.

● **Overview of “Goodbye Overtime – Action 8”**

Campaign Name	Description
I. 8 O'clock Rule	Leave work by 8:00 p.m.
II. No Sunday Work	Prohibits work on Sundays
III. No Overtime Day	Each department (group) sets its own “No Overtime Day” roughly once a week
IV. Minus 30 Minutes	Leave work 30 minutes before the end of regular working hours at least once per month
V. Compliance with Overtime Rules	Leave at the end of regular working hours when there is no order to work overtime
VI. Whenever Wherever	(Supervisors) Issue work orders with clearly stipulated purpose, delivery time and quality (whenever wherever) (Employees) Accept orders after conveying other work responsibilities at hand
VII. Lead by Example	Managers foster an environment where it is easy to take annual paid leave
VIII. Do It Yourself	To the extent possible, managers prepare their own briefing materials, etc.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	<b>Engagement with Employees</b>	Engagement with Business Partners	Engagement with Civil Society	

VOICE



(Left: Employee who took childcare leave)  
**Takahiro Suetomi**  
 Group 1  
 Corporate Planning & Management  
 Department  
 (Belonged to the Business Integration  
 Preparation Group of the same department  
 when he took the leave)  
 (Right: His wife)  
**Shizuka Sakura**  
 Business Development Group  
 Lubricants Business Planning Department  
 Lubricants Company

**Grateful for the Understanding and Support for Childcare Leave Shown by Workplace Superior and Colleagues**

I have three children and use the flextime program to take them to nursery school each morning before going to work. When my third child was born in February 2017, I took about a month off under the childcare leave program. I did so to support my wife after childbirth, but I also wanted to share the burden of caring for our newborn child and use the experience for our family life ahead.

By actually taking childcare leave, I was able to realize how unimaginably difficult it is to care for a newborn. It also gave me the precious opportunity to see my two older children grow with each day. I felt truly grateful that our company offers this program to assist its employees.

I took leave when my workplace was in the midst of a very busy period, and I was concerned about really being able to take time off for childcare. However, my superior and colleagues were all supportive of my taking childcare leave, and they willingly took on my responsibilities during my absence. I am deeply grateful that the program exists not only in principle but is also being put into practice with the understanding and cooperation of those in the workplace.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	<b>Engagement with Business Partners</b>	Engagement with Civil Society	

# Engagement with Business Partners

## JXTG Nippon Oil & Energy Forms Sound Relationships with Suppliers and Business Partners to Achieve Mutual Prosperity and Contribute to Society

The growth in the scope and complexity of our relationships with suppliers has begun to require all-encompassing communication. While legal and regulatory compliance in each region and country remains a prerequisite for JXTG Nippon Oil & Energy, conducting procurement according to the JXTG Group Philosophy and Code of Conduct is becoming more important.

Although we cannot promise any specific measures at this point, we are making steady progress in recognizing and sharing the importance of CSR procurement within our Group and with all of our suppliers.

**Yoshiyuki Someya**  
Executive Officer and General Manager  
Procurement Department



### F u n d a m e n t a l A p p r o a c h

We conduct procurement under the JXTG Group Philosophy of “high ethical standards” and “health, safety and environment” as our most important principles of conduct, and we build sound partnerships with our suppliers and business associates so that together we can earn society’s trust and meet its expectations.

#### Engagement with Suppliers

The Procurement Department is responsible for the procurement of materials, equipment and services, as well as for construction contracts.

We believe that we can conduct business activities together with our suppliers that earn society’s trust by sharing our principles of conduct and forging strong relationships with suppliers across our procurement operations.

Applying the knowledge, experience and networks accumulated through our procurement operations over the years, the Procurement Department has established a system that ensures results at optimal cost to the Group. In addition, we have consistently sought to reduce our environmental impact in terms of health, safety and the environment.

We evaluate overall reliability when selecting suppliers to ensure the practice of fair and equitable transactions under the JXTG Group Code of Conduct. Specifically, we emphasize aspects such as safety, the environment, health, information management and legal compliance, in addition to pricing, quality, delivery, technical capability and stable supply.

To promote its CSR initiatives, JXTG Nippon Oil & Energy will seek thorough compliance by conducting business activities, based on an understanding of the JXTG Group Philosophy of “high ethical standards” and “health, safety and environment,” within its own Group as well as among its suppliers, thereby enhancing their compliance and making a positive impact on society at large through its supply chain.



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	<b>● Engagement with Business Partners</b>	Engagement with Civil Society	

## Top-Quality Delivery Service by Contract Carriers

Contract carriers that deliver the Group's products are vital business partners. We conduct a variety of training and education activities for all contract carriers to raise safety awareness, strengthen skills and upgrade facilities for safe delivery. In times of emergency as well as under normal circumstances, the Group promptly teams up with contract carriers to ensure a stable supply of products.

### ● Main Efforts Undertaken in Collaboration with Contract Carriers

#### Efforts to Ensure Transport Safety

We promote the installation of drive recorders in all the delivery vehicles of our contract carriers and provide defensive driving training for tank truck drivers. In addition, we host a contest for improving driving and unloading skills in an active effort to raise safety awareness.

#### Attention to the Environment

We continue to promote the use of large-capacity tank trucks. This has helped to reduce the number of deliveries to service stations, resulting in reduced emissions and diesel consumption volumes.

#### Communication of Group Policies

We hold management meetings for all of our contract carriers at the beginning of each year to share our safety policies and targets for the year.

#### Establishment of the Business Contingency Plan (BCP) System

To fulfill its responsibility of providing a stable supply of energy, the Group has designated the Mizushima Refinery (former JX Group) and the Sakai Refinery (former TonenGeneral Group) as back-up offices to maintain delivery operations in emergency situations, including major earthquakes that could occur directly under the Tokyo metropolitan area and in the Nankai Trough. We also hold periodic emergency response training with contract carriers to improve the efficiency of the BCP system.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	<b>Engagement with Business Partners</b>	Engagement with Civil Society	

## Communication with Dealers

Dealers constitute key business partners responsible for directly providing our products and services to customers. In April 2017, our business integration led to the creation of a nationwide network of as many as 14,000 service stations in Japan. Having made a new start in fiscal 2017, the JXTG Group has upheld “Offering the best service and technical skills to make our customers happy as the service station of choice” as the theme of our activities. We have also begun initiatives at our service stations for the integration of the high-quality services and technical skills of our respective brands to ensure that we continue to provide reliable, customer-oriented services.

As part of an exchange between service stations operating under the ENEOS brand of the former JX Nippon Oil & Energy and those under the ESSO, Mobil and General brands of the former TonenGeneral Group, service station managers representing their respective brands visited each other’s stations to conduct an objective inspection of services offered, payment systems, customer care and hygiene management, and engaged in dialogue. Managers from all stations noted aspects that could improve their own management and future brand value.

We will maintain an active exchange among service stations to create new value.

### VOICE



**Hiroki Mori**  
 Manager  
 Dr. Drive Sannomiya  
 Branch  
 Nishimura Co., Ltd.

#### Raising the Standard of Service Stations through Friendly Rivalry

The concept of the Ikoma Highway Service Station (EMG) perfectly matched its location on the “fastest,” “easiest” and “cleanest” highway. Its layout was simple, with facilities and systems designed for efficiency. I was impressed by how, with a limited number of staff, the station was able to offer services that satisfy customers.

The self-service car washing machines were always kept tidy and operational, and car parts were clearly displayed for customers who came in for a vehicle inspection. While the emphasis was on efficiency, significant attention was paid to important details, and I felt it was this combination that attracted customers.

I also saw many other aspects of station management, sales promotion and personnel management that could be used to improve the level of our own operations, which in turn raised my expectations for the potential synergies of integration for service stations.

We will continue our efforts to provide high-quality, customer-oriented service through friendly rivalry.

#### Business Integration Is an Opportunity for Change at Our Service Stations

As I had imagined, mechanics with national qualifications were stationed at Dr. Drive, providing a high level of total car maintenance, from safety to mandatory inspections. This must be a major strength for the Dr. Drive Sannomiya Branch, where many customers own luxury cars.

What caught my eye was the safety check sheet handed to the customer during inspections. The sheet had a space on which a drop of engine oil could be placed, allowing customers to see the sludge level according to the color, which I think is really convincing for them.

The quality control check sheet for the manual car wash was another idea built on past achievements and efforts, and also very helpful.

While the means may differ, we share the same goal of making our customers happy. In that sense, I hope to seize upon this business integration as an opportunity to change our conventional methods and thinking toward further evolution.



**Hiroto Hasegawa**  
 General Manager  
 Ikoma Highway SS  
 Tiger Sekiyu

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

# Engagement with Civil Society

**JXTG Nippon Oil & Energy engages in a broad range of social contribution activities, primarily through its business sites. These activities include planning and organizing programs, making donations and sponsoring events.**

We fulfill our social responsibility primarily by providing a stable supply of energy and ensuring safety and reliability. In addition, we believe that contributing to the development and vitalization of civil society, mainly through the sites where we operate, is a key part of our mission. We will nurture society's trust in the Group by promoting social contribution activities in our priority areas toward our goal of resolving social issues. This fiscal year, we are particularly focusing on supporting persons with disabilities through sports. Moreover, we are working to strengthen our ties with society by maintaining a dialogue with all stakeholders.

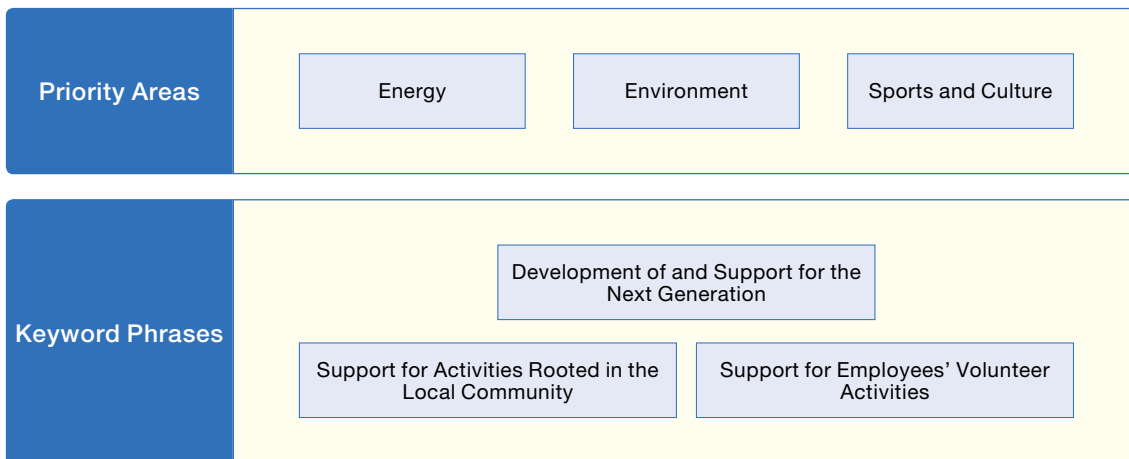
**Daiji Yamamoto**  
 General Manager  
 General Administration Department



## F u n d a m e n t a l A p p r o a c h

Under the JXTG Group Philosophy, JXTG Nippon Oil & Energy seeks to “contribute to the development of our communities and help to ensure a vibrant future” as our mission while setting out “contribution to the development of civil society” in our Group Code of Conduct, which guides us in practicing our philosophy. Social contribution activities are positioned among our eight priority fields for CSR activities based on the Group Code of Conduct. We have also designated the three priority areas of “Energy,” “Environment” and “Sports and Culture,” along with the three keyword phrases of “Development of and Support for the Next Generation,” “Support for Activities Rooted in the Local Community” and “Support for Employees’ Volunteer Activities.” By connecting the needs of local communities with social contribution centered on the activities that we pursue through our core business, we seek to serve society by continuously carrying out efficient and effective activities that utilize the resources and networks of JXTG Nippon Oil & Energy.

● Priority Areas and Keyword Phrases of Social Contribution Activities



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

## Energy and Environment

As a company that handles limited resources, providing a stable supply of energy and protecting the environment are key issues for JXTG Nippon Oil & Energy, and we proactively engage in social contribution activities in the areas of energy and the environment.

### Public Trust\* “ENEOS Hydrogen Trust Fund”

Hydrogen has garnered attention as a new energy source that can help create the sustainable society of tomorrow. However, major technological advances are still needed in the fields of hydrogen production, transport and storage as well as carbon capture and reduction in order for this potentially revolutionary technology to be used more widely in energy systems. JXTG Nippon Oil & Energy established the ENEOS Hydrogen Trust Fund in March 2006 in order to help speed up the realization of a hydrogen energy society through grants to fund basic research that is both innovative and pioneering. Each year, the trust fund provides up to 50 million yen (up to 10 million yen per project) in grants to support innovative and pioneering basic research into hydrogen energy supply systems. Our contribution of 1.5 billion yen to the fund will enable the funding of research continually for the next 30 years.

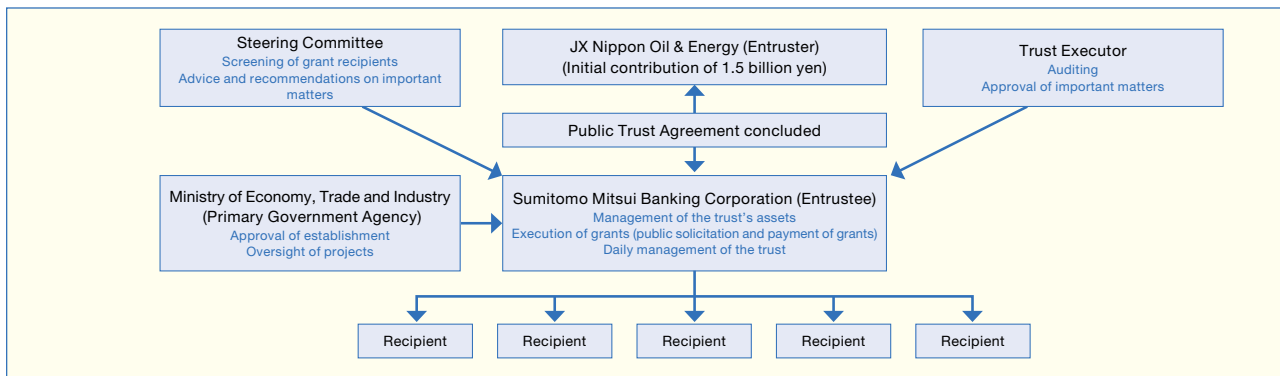
The funding encourages basic research for establishing and verifying new scientific principles that transcend existing ideas. This will build the foundation for technological advancements and help to quickly realize the hydrogen society of tomorrow.

Of the 70 projects that applied for funding in fiscal 2016, we provided grants to six researchers following careful screening by the fund’s steering committee.

We will continue to strive toward the realization of a sustainable society based on hydrogen energy through this fund.

\*In Japan, a public trust is a program for the benefit of the public in which an entruster provides assets to a trust bank (trustee) for a defined purpose and the trust bank then manages the trust’s assets in accordance with the Public Trust Agreement concluded between the two parties. This scheme is used by a wide range of public interest projects to provide funding for scholarships, grants for research into the natural sciences, art and science, grants for environmental protection activities, and the promotion of international cooperation and international exchange. Public trusts can only be established with the approval of the primary government agency with jurisdiction.

### Overview of the ENEOS Hydrogen Trust Fund



<b>Name</b>	ENEOS Hydrogen Trust Fund
<b>Trustee</b>	Sumitomo Mitsui Trust Banking Limited
<b>Primary Government Agency</b>	Ministry of Economy, Trade and Industry
<b>Purpose</b>	Provide grants for basic research into hydrogen energy supply solutions and contribute to the realization of a hydrogen-based society of tomorrow, as hydrogen is an energy source that is in harmony with the environment.
<b>Total Trust Assets</b>	1.5 billion yen
<b>Annual Grants Awarded</b>	Up to 50 million yen (maximum grant of 10 million yen per project)
<b>Research Supported</b>	Basic research that is both innovative and pioneering in the fields of hydrogen energy production, storage and transport as well as carbon capture and reduction.
<b>Grant Eligibility</b>	Applicants belonging to non-profit national research institutions, such as universities or public research organizations, and who are conducting research in the eligible fields.
<b>Solicitation and Selection Process</b>	Solicitation shall be open to the public, with screenings performed by the trust’s steering committee.

Application Guidelines

(<https://www.no.ejxtg-group.co.jp/company/csr/society/community/aid/>) (available only in Japanese)

News Releases on Recipients in FY2016

([https://www.no.ejxtg-group.co.jp/newsrelease/jx/2016/pdf\\_export/20161017\\_01\\_1040054.pdf](https://www.no.ejxtg-group.co.jp/newsrelease/jx/2016/pdf_export/20161017_01_1040054.pdf)) (available only in Japanese)

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

### ● Dispatch of a Mobile Hydrogen Station to the Meeting of G7 Science and Technology Ministers in Tsukuba

G7 science and technology ministers met from May 15 to 17, 2016, in Tsukuba City, Ibaraki Prefecture, where we dispatched the mobile “Tsukuba Kasuga Hydrogen Station” in collaboration with Ibaraki Prefecture and Tsukuba City.

The goal was to supply hydrogen fuel for fuel cell vehicles used as transportation for the participating ministers. We also deployed two other mobile stations that usually operate in other prefectures as a temporary measure to support the G7 ministers’ meeting.

We will continue to install hydrogen stations to contribute to the creation of a hydrogen society.



A hydrogen-fueled vehicle used as transportation for G7 ministers

### ● Promoting Forest Conservation Activities

Forests play a vital role in absorbing CO<sub>2</sub>, maintaining biodiversity, preventing landslides at water sources and mitigating floods. The loss of these functions would significantly impact our daily lives, which is why JXTG Nippon Oil & Energy endeavors to maintain them by engaging in forest conservation activities.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

**ENEOS no Mori Activities**

We support the stewardship of specified sections of unmaintained forests in Japan by forming partnerships with local governments or the National Land Afforestation Promotion Organization. These activities are conducted at eight ENEOS no Mori forests in the prefectures of Hokkaido, Miyagi, Kanagawa, Nagano, Osaka, Okayama, Yamaguchi and Oita.

At each ENEOS no Mori forest, employees of the JXTG Nippon Oil & Energy Group and their families take part in activities led by local NPOs and other groups specializing in forest stewardship. In addition to conservation activities such as tree planting, thinning and brush clearing, participants get closer to nature by observing flora and fauna, building birdhouses and lightly harvesting forest products.

In fiscal 2016, we conducted activities 16 times at eight locations, with a total of 1,514 participants that included employees and their families. Since 2005 we have held activities 197 times at sites across Japan, with participants numbering 15,940.

We will continue to maintain the forests through our ENEOS no Mori activities.



TOPIC

Strengthening Our Bonds with the Local Community through Forest Conservation

In May 2016, 47 participants comprising JXTG Group employees from various business sites and their families took part in two days of conservation activities at the ENEOS Ayumi no Mori forest in Hara Village, Nagano Prefecture.

The first day was spent in the learning forest of a local elementary school, weeding out bittercress, an invasive plant that stunts tree growth. Participants then put in more hard work, clearing the undergrowth and mending the deer netting. This effort was followed by fun activities for the entire family with the cooperation and guidance of members of the local community, such as making mugwort-flavored rice dumplings for the gathering and an “onbe,” a ceremonial item used in a festival that takes place in the Suwa region once every seven years. During this friendly gathering, participants were able to forge closer ties with the local people, including Hara Village officials, forestry cooperative staff, teachers at Hara Elementary School and the Suwa Shirakaba group.

On the second day, participants worked together to maintain the mountain trail by covering the Ayumi no Komichi path with wood chips, which prevent the spread of weeds. This concluded a satisfying weekend of forest conservation activities for the volunteers.

Children also took part in the activities

**Adopt Forest\* Nijozan TonenGeneral Goodwill Forest Maintenance program**

Since 2011, JXTG Nippon Oil & Energy has been involved in conservation activities in the Yamada area of Taishi-cho, Osaka Prefecture, on behalf of the owners of the forests, which need significant care.

In fiscal 2016, the activities took place in October, with the participation of 34 volunteers, including our employees and those of our business partners. The participants learned about the significance of thinning as a means of forest conservation to prevent flooding and landslides and reduce CO<sub>2</sub>, and they also took part in a thinning activity.

\*A program in which Osaka Prefecture mediates between companies and forest owners to facilitate the participation of companies in forest stewardship activities such as thinning, tree planting and clearing undergrowth to prevent global warming and protect biodiversity.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

### ● Promoting Afforestation with the ENEOS Credit Card

Ever since we began offering ENEOS credit cards in October 2001, we have donated part of the amount charged on these cards by customers at ENEOS service stations to the National Land Afforestation Promotion Organization. The funds are being used to help support a host of environmental support programs implemented by the organization, including youth forestation activities, the revitalization of tropical forests and the prevention of desertification.

About 37.83 million yen was donated in fiscal 2016, and total donations to date through this initiative have reached approximately 430 million yen.



ENEOS Card

### ● Click-to-Donate for the Protection of Enegori-kun Forests

We donate one yen for every click on our click-to-donate site to support the activities of the Japan Wildlife Conservation Society (JWCS). The JWCS is a nonprofit organization that endeavors to establish a new relationship between humans and wildlife through theoretical study, the sharing of information and the expansion of education. Donations from our click-to-donate site are utilized to save wild gorillas as one of the JWCS's habitat protection projects, conducted by the Wildlife Conservation Society Congo and Pole Pole Foundation. In fiscal 2016, we received 2,447,350 clicks and donated one yen for each to the JWCS.

### ● Reintroduction of the Oriental White Stork Project Support Activities

It is widely believed that the Oriental white stork brings happiness. However, the last of these birds disappeared from the Japanese wilderness and skies in 1971, mainly due to rapid deterioration of local environments.

Toyooka City in Hyogo Prefecture, which had been the last habitat of the Oriental white stork in Japan, is running a program to recreate the stork's rich natural environment and reintroduce the bird to its skies by releasing artificially bred storks into the wild.

JXTG Nippon Oil & Energy supports the Reintroduction of the Oriental White Stork project and strives to protect the natural environment so that both this bird and humans can live comfortably.

Since fiscal 2009, we have been holding ENEOS Living Creatures School classes for children in the Kansai area to teach about protecting wild Oriental white storks using a variety of hands-on learning curricula focused on biodiversity conservation.

 Konotori (Oriental White Stork) CSR

(<https://www.noe.jxtg-group.co.jp/kounotori/>) (available only in Japanese)

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

**ENEOS Living Creatures School**

In June 2016, we held an ENEOS Living Creatures School on protecting the Oriental white stork in Toyooka City, Hyogo Prefecture. Aimed at children, who are the leaders of the future, this hands-on learning program is designed to provide accurate knowledge of the wetlands and the mechanisms of biodiversity, and is also an opportunity to experience nature.

The program took place in the Tai Hamlet, a registered site under the Ramsar Convention, located northeast of Toyooka City. Thirteen pairs of elementary school students and their guardians observed the storks and participated in activities aimed at increasing the number of species in the marsh. Some of the participants told us that they were more interested in animals after directly experiencing nature with all five senses and that they understood how nature and animals could disappear without our protection.



Observing the Oriental white stork



Shoveling a waterway in the marsh

**Green Curtain Project**

Since 2010 the Chiba Refinery has been actively involved in the Green Curtain Project promoted by Ichihara City as a measure for preventing global warming. Green curtains can maintain lower indoor temperatures by shutting out direct sunlight on buildings and thereby reduce power consumption.

In fiscal 2016, we donated 500 bitter melon seedlings and received a letter of appreciation from Ichihara City. The seedlings were distributed to nurseries, kindergartens, and elementary and junior high schools in 11 locations and used to increase the greenery of each place.



Donation of 500 bitter melon seedlings to Ichihara City



Green curtain made of bitter melon vines



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

## Sports

JXTG Nippon Oil & Energy offers dedicated support for activities that contribute to society through sports. We actively promote sports and seek to revitalize local communities by organizing classes taught by members of the team we sponsor, sponsoring tournaments for disabled sports and participating in local competitions.

### ● Basketball Promotion Activities

JXTG Nippon Oil & Energy sponsors the JX-ENEOS Sunflowers women's basketball team. We have also organized a select team consisting of current JX-ENEOS Sunflowers members and those previously on the team who made their mark in global competition for the purpose of traveling across Japan to hold basic basketball skills clinics. These were held 78 times in fiscal 2016 with a total of 3,498 people taking part.

#### JX-ENEOS Sunflowers

(<https://www.jxtg-group.jp/sunflowers/>) (available only in Japanese)

#### JX-ENEOS Basketball Clinic

(<https://www.jxtg-group.jp/clinic/>) (available only in Japanese)

### ● Sponsorship of the Prime Minister's Cup Wheelchair Basketball Championship in Japan

Since 2006 we have been sponsoring the Prime Minister's Cup Wheelchair Basketball Championship in Japan to promote the sport. In the 44th tournament, we created opportunities for Group employees to watch the games, which they also helped to organize as volunteers. Launched in 1970, this is the top tournament for men's wheelchair basketball in Japan. Out of the country's roughly 80 registered teams, the 16 winners of the regional qualifying round compete for the championship at the Tokyo Metropolitan Gymnasium.

Wheelchair basketball has the highest player population in Japan among disabled sports.



Competitors playing wheelchair basketball

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

### ● Baseball Promotion Activities

We sponsor the JX-ENEOS non-professional baseball team and also take part in activities aimed at advancing Japan's national pastime of baseball. As part of these activities, we sponsor the "Samurai Japan" men's national team, the Japan Rubber Baseball ENEOS Tournament of Emperor's Cup, the Japan Dream Baseball League, and the Women's Baseball Federation of Japan as well as other baseball-related events.

#### JX-ENEOS Baseball Club

(<https://www.jxtg-group.jp/baseball/>) (available only in Japanese)

### ● Sponsoring the National Disabled Baseball Tournament

We have been a sponsor of the Japan Dream Baseball League since 2007 and also sponsored the 24th National Disabled Baseball Tournament, one of Japan's largest. Out of the 36 league members, 16 teams are selected based on the results of the regional qualifying round to compete in the tournament.



A player at bat

### ● Inviting Children to Attend FC Tokyo Soccer Matches

JXTG Nippon Oil & Energy is an official sponsor of the team FC Tokyo of Japan's professional soccer league, the J-League. Beginning in 2005, we set up special ENEOS Friend—Crew Seats at FC Tokyo home matches so that we can invite children and their guardians from foster-care facilities, single-mother support facilities and the NPO Tokyo Yoikukatei-No-Kai to attend.

In fiscal 2016, we invited 567 people to 17 FC Tokyo home matches.

### ● Volunteering to Help Organize the 36th Oita International Wheelchair Marathon

In October 2016, 13 Oita Refinery employees volunteered to help organize the 36th Oita International Wheelchair Marathon.

The event was launched to commemorate the United Nations International Year of Disabled Persons in 1981 as the world's first international marathon exclusively for wheelchair users. It has been held every year since then and is widely recognized as the world's largest top-level competition. The event is organized with the help of more than 2,000 supporters and volunteers and funding from corporate sponsors.

The volunteers were responsible for guiding spectators as well as controlling entry and directing vehicles at intersections without traffic lights. The sight of athletes competing in the marathon was a source of courage and inspiration for the spectators, who lined up along the route to cheer for them.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

● **Participating in the Yokohama YMCA International Charity Run**

In October 2016, we participated in the 19th Yokohama YMCA International Charity Run in the Yokohama Minatomirai Portside Park. The run has been held as part of the YMCA's programs for encouraging social participation by children with disabilities, and JXTG Nippon Oil & Energy has been supporting the event for more than 15 years.

A total of 114 teams from companies and organizations competed in a five-person relay along a 1.1 kilometer course set up inside the Portside Park. We entered nine teams in the competition, with six employees also participating as volunteers. On the day of the race, about 80 people, including the participants' families and colleagues, gathered at the park to cheer for the teams.



Participants get off to a spirited start

● **Sponsoring the 46th Minister of Health, Labour and Welfare Cup National Disabled Ski Competition**

In March 2017, four employees volunteered to help organize the 46th Minister of Health, Labour and Welfare Cup National Disabled Ski Competition at the Sugadaira Kogen Ski Resort in Ueda City, Nagano Prefecture. Each year, JXTG Nippon Oil & Energy sponsors the competition, hosted by the Japanese Para Sports Association and the Japan Para-Ski Association.



Participants and volunteer staff at the ski competition

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

## Culture

JXTG Nippon Oil & Energy contributes to the enrichment of society through its support for culture and the arts.

### ● JX-ENEOS Children's Story Award\*/A Bouquet of Children's Stories

The JX-ENEOS Children's Story Award, organized by JXTG Holdings, is a contest that recognizes the best works from submissions of original children's literature on the theme of "heart-to-heart contact."

The award originated in 1970 with the publication of a children's story book that was handed out as a gift to customers of home-delivered fuel. In 1973 we began receiving stories from the general public and publishing the best works in a collection called *A Bouquet of Children's Stories*.

The award has gained popular support, with the number of submissions surpassing 5,000 in 1984 and exceeding 10,000 in 1993. We receive submissions from outside Japan as well. Fiscal 2016 marked the 47th time these awards were presented. The award has three categories, including "older students and adults," "junior high school students" and "elementary school students and younger," thus providing an opportunity for persons of all ages, from adults to young children, to submit their original children's literature. Copies of *A Bouquet of Children's Stories* are widely distributed to the public and donated to educational institutions and child welfare facilities across Japan.

 *A Bouquet of Children's Stories*

(<https://www.jxtg-group.co.jp/hanataba/>) (available only in Japanese)

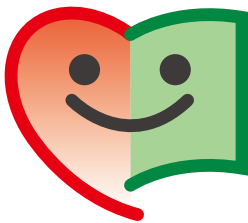
\*Renamed as the "JXTG Children's Story Award" in April 2017.

### ● JX-ENEOS Children's Story Fund\*

JXTG Holdings transfers all proceeds from copies of *A Bouquet of Children's Stories* purchased by dealerships operating ENEOS service stations as well as executives and employees of the JXTG Group to the JX-ENEOS Children's Story Fund, which in turn makes donations to the Japan Council of Social Welfare. These donations are used to fund the JX-ENEOS Scholarship Program\*, which provides financial assistance to children from child welfare facilities and foster homes who pursue higher education after graduating from high school.

In fiscal 2016, we supported 496 students.

Since the program was launched in 2004, we have extended a total of 466.45 million yen to support 4,772 students.



## JXTG 童話基金

Logo of the JXTG Children's Story Fund

\* The JX-ENEOS Children's Story Fund has been renamed as the "JXTG Children's Story Fund." The JX-ENEOS Scholarship Program has been renamed as the "JXTG Scholarship Program."

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

### ● The TonenGeneral Children's Culture Award and Music Awards\*

The TonenGeneral Children's Culture Award and the TonenGeneral Music Awards are presented in recognition of those who have contributed to the development and improvement of music and children's culture in Japan. In fiscal 2016, the awards were presented for the 51st time and 46th time, respectively.

The establishment of the TonenGeneral Children's Culture Award dates back to 1963. That year, to commemorate the 70th anniversary of the foundation of then-operating Mobil Sekiyu, entries were solicited from the general public for original children's stories based on the theme of a red horse. The stories received an enthusiastic response in the fields of both education and children's literature, leading to the establishment of the award in 1966.

The TonenGeneral Music Awards were established in 1971, and comprise two divisions, the Japanese Traditional Music division and the Western Classical Music division. The awards are unique in the sense that they recognize musicians not for their activities in a single year, but for achievements to date. Many of the awardees have subsequently been certified as Important Intangible Cultural Property holders (National Living Treasures).

\*The TonenGeneral Children's Culture Award and the TonenGeneral Music Awards were renamed as the "JXTG Children's Culture Award" and "the JXTG Music Awards," respectively, in April 2017.

### Commemorative Performances for the 2016 TonenGeneral Children's Culture Award and Music Awards

A program of commemorative performances by the recipients of the 2016 TonenGeneral Children's Culture Award and Music Awards was held in November 2016 at Kioi Hall in Chiyoda-ku, Tokyo. Around 600 people attended the event, including members of the general public and guests of the awardees.

Children's Culture Award recipient Kimiko Aman presented a reading of her first published work, "Kuruma no iro wa sora no iro shiroi boshi." Yosimaru Kineya, recipient of the Music Award—Japanese Traditional Music, performed the Kineya Rokuzaemon XI composition "Shin-kokaji," accompanied by 12 musicians. Music Award—Western Classical Music Promotion recipient Mami Hagiwara performed the first movement of Mozart's Piano Concerto No. 27 in B-flat Major, K.595, accompanied by Orchestra Ensemble Kanazawa, under the baton of Music Award—Western Classical Music recipient Michiyoshi Inoue. For the final performance, Mr. Inoue took to the stage once more to conduct the orchestra in the third and fourth movements of Beethoven's Symphony No. 4 in B-flat Major, Opus 60.



Piano performance by award winner

### Performance by Recipients of the TonenGeneral Children's Culture Award

JXTG Nippon Oil & Energy presented the TonenGeneral Children's Culture Award Outreach Performances by inviting the Kazenoko Theater Company, recipient of the 11th Award in 1976, to perform at elementary schools in Osaka, Chiba and Wakayama, delivering a moving experience for the roughly 1,400 attendees.

The Outreach Performances were launched in 2015 to commemorate the award's 50th anniversary with the goal of nurturing a rich sensitivity and imagination among children, who are at the center of children's culture. With the cooperation of past award recipients, we offered performances in cities where the Group's refineries and other business sites are located.



A scene from Kuma no ko Ufu (Little Bear Oof)

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

TOPIC

**TonenGeneral Children's Culture Award\* Receives Highest Accolade in the 2016 Japan Mécénat Awards**

For the second consecutive year, the TonenGeneral Children's Culture Award was selected for "This is MECENAT 2016" certification by the Association for Corporate Support of the Arts. The TonenGeneral Music Awards were also certified for the first time.

The TonenGeneral Children's Culture Award also received the "Half-century of Giving Dreams to Children" Award for Excellence in the 2016 Japan Mécénat Awards.

The Association for Corporate Support of the Arts was founded in 1990 to revitalize corporate activities in support of art and culture (Mécénat).

\*Renamed as the "JXTG Children's Culture Award" in April 2017.



Award presentation ceremony

**● Book Report Painting Contest**

The West Japan Book Report Painting Contest has been held for more than half a century since it started back in 1957. Every year, some 400,000 students from schools on the island of Kyushu and in Yamaguchi Prefecture submit their works.

A book report painting involves creating a painting, woodcut or collage to depict a memorable scene from a book. This form of art has been incorporated into school education because it helps to spur children's interest in reading regularly.

The quality of submissions for the contest has often been noted by those in the arts, and past award winners are now active in many fields, including education and the arts.

JXTG Nippon Oil & Energy has helped sponsor this contest since 1969.



Award ceremony for the West Japan Book Report Painting Contest

 **Book Report Painting Contest**

(<https://www.noie.jxtg-group.co.jp/company/csr/kansouga/>) (available only in Japanese)

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

## Developing the Next Generation


JXTG Nippon Oil & Energy supports the development of future generations in a variety of ways.

### ● ENEOS Environmental Classes (School Visits)

JXTG Nippon Oil & Energy employees visit elementary schools and other sites to offer ENEOS environmental classes on topics such as the importance of oil to daily life, how petroleum products are created, the current state of global warming and new environmentally-friendly energy sources. The employees use quizzes, experiments and observation of actual crude oil to present the material in an intuitive way to students.

Classes have been held since fiscal 2008, reaching 214 schools nationwide and some 11,890 students.

We provide lively classes about the environment and energy, during which students cheer aloud during experiments for extracting hydrogen or generating electricity from fuel cells.

 Video of an ENEOS environmental class  
 ([https://www.youtube.com/watch?v=\\_uZSMYJZ8AM](https://www.youtube.com/watch?v=_uZSMYJZ8AM)) (available only in Japanese)

 Feedback from ENEOS environmental classes  
 (<https://www.no.e.jxtg-group.co.jp/company/csr/society/community/wakuwaku/>) (available only in Japanese)



Class during a school visit

### ● ENEOS Children’s Science Classes

Our Central Technical Research Laboratory has been holding the ENEOS Children’s Science Class for local elementary schools since January 2005 as a means of deepening children’s interest in science as well as their understanding of energy and the environment. As of the end of fiscal 2016, the classes have been held 78 times and attended by some 4,060 elementary school students.

Research topics from the Central Technical Research Laboratory are arranged for participants in late elementary school grades, and the curriculum for every session is tailored to the learning needs and levels of the participating students. Some of the positive feedback from students included, “It was really fun to learn about oil and petrochemicals through so many experiments.”



Children’s Science Class

Message from the President

About JXTG Nippon Oil &amp; Energy

Management System

CSR Management

Social Report

Environmental Report

Safety Initiatives

Engagement with Customers

Engagement with Employees

Engagement with Business Partners

● Engagement with Civil Society

### ● Summer Holiday Science Bus Tour

Our refineries, plants and oil terminals work with local newspaper companies to hold the Summer Holiday Science Bus Tour for elementary school students and their guardians. By touring the refineries, plants and oil terminals and taking part in experiments, the participants have fun learning about the process of manufacturing petroleum products and the importance of energy resources.

Participants always provide a great deal of feedback on the program including, “It served as a great opportunity for me to think about the environment and energy.”

The bus tours were held at nine locations in fiscal 2016, attracting 714 participants, including children and their guardians.

#### Summer Holiday Science Bus Tour

(<https://www.noie.jxtg-group.co.jp/company/csr/bustour/>) (available only in Japanese)



Participants of the Summer Holiday Science Bus Tour

### ● On-site Learning Experience (Social Studies Tour) and School Visits

Our refineries, plants and other business sites provide on-site learning experiences for local students and dispatch employees to schools to teach the importance of work. All of the activities are conducted in collaboration with local governments, schools and companies to promote employment and employee retention at local companies and support local communities by developing human resources.



Message from the President

About JXTG Nippon Oil &amp; Energy

Management System

CSR Management

Social Report

Environmental Report

Safety Initiatives

Engagement with Customers

Engagement with Employees

Engagement with Business Partners

● Engagement with Civil Society

## Local Communities

JXTG Nippon Oil & Energy strives to secure the safety of people living near its business sites while engaging in a broad range of activities that meet the expectations of the local community in an active effort to strengthen interactions with local citizens.

### ● Preparing Against Disasters in the Local Community

At each refinery and oil depot, JXTG Nippon Oil & Energy conducts joint drills with local governments and fire departments to prepare against large-scale disasters and accidents inside the facility. We make the utmost effort to ensure safety in the local community by carrying out practical drills with local governments and disaster prevention institutions to develop closer cooperation in the event of a disaster.

Moreover, we seek to prevent accidents at hydrogen stations, which have been set up in recent years, by conducting joint drills with fire departments that take into account the properties of hydrogen.



Drill at a hydrogen station

### ● Cleanup Activities

As part of our social contribution activities, employees of the JXTG Nippon Oil & Energy Group actively engage in cleanup activities near our business sites to help create a pleasant landscape. Many employees also participate in activities organized by local governments and NPOs. We seek to maintain good relationships with local citizens through these activities.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	<b>Social Report</b>	Environmental Report
Safety Initiatives	Engagement with Customers	Engagement with Employees	Engagement with Business Partners	<b>Engagement with Civil Society</b>	

## Volunteer Activities

JXTG Nippon Oil & Energy seeks to contribute to the development of civil society by creating an environment that encourages employees to practice social contribution activities as members of society.

### ● Support for Employees that Take Part in Volunteer Activities

We have implemented a program that enables employees to take time off from work to participate in volunteer activities. In fiscal 2016, 15 employees used the program to take a total of 25.5 days off for volunteer work.

### ● Volunteer Collection Drive Activities

We have been collecting and donating unusable postcards, unused prepaid cards and other items to NGOs since 1997 to provide an opportunity for anyone to easily take part in volunteer activities. Starting in fiscal 2015, JXTG Holdings is now spearheading these efforts as part of its community contribution activities involving the entire JXTG Group.

### ● Bread Sales Drive in Support of Persons with Disabilities

As part of our activities to foster greater awareness about persons with disabilities among our employees, in 2015 we began holding bread sales drives at the JX Building, our head office, in cooperation with Koro-Koro, a bakery that employs persons with disabilities.

The sales drives were held five times in fiscal 2016, and each occasion was crowded with employees purchasing bread. Moreover, employees were impressed with how delicious the bread was, and those with disabilities who sold the bread were greatly encouraged by this positive feedback.

We will continue to hold similar sales drives in the future as a means of supporting persons with disabilities.



Crowds gather at the bread sales drive

# Environmental Report

Recognizing the irreplaceable value of the global environment, JXTG Nippon Oil & Energy strives to preserve natural capital and biodiversity and contribute to the formation of a sustainable society.

- 
- 74** Environmental Management
  - 77** Overview of Our Environmental Impacts
  - 79** Global Warming Prevention Measures
  - 81** Biodiversity Preservation
  - 83** Activities for Reducing Our Environmental Impacts
  - 90** Developing and Supplying Environmentally-Friendly Products and Services
  - 91** Environmental Measures at Our Refineries, Plants and Other Sites

# Environmental Management

**We Take Part in the Worldwide Effort for Environmental Preservation, Addressing Issues Such as the Growing Threat of Global Warming.**

As a corporate group handling limited resources, JXTG Nippon Oil & Energy formulated its new Medium-Term Environmental Management Plan with the firm intention of promoting the formation of a sustainable society. In view of our overseas business activities, we also promptly comply with increasingly diversified and stringent environmental laws and regulations. At the same time, we seek to fulfill our important mission of handing down our precious global environment to future generations.

**Koji Teramoto**  
 General Manager  
 Safety, Health & Environment Department



## F u n d a m e n t a l A p p r o a c h

The JXTG Nippon Oil & Energy Group is committed to striking a harmonious balance between our business activities and the global environment by constantly being aware of the impacts these activities have or may have on the natural environment.

To define this commitment, we formulated the Medium-Term Environmental Management Plan based on the JXTG Nippon Oil & Energy Group Environmental Policy. In order to steadily execute the plan, we established the JXTG Nippon Oil & Energy Group Environmental Management System (EMS). These plans, policies and systems represent our integrated and consistent Group-wide approach to environmental management.

### JXTG Nippon Oil & Energy Group Environmental Policy

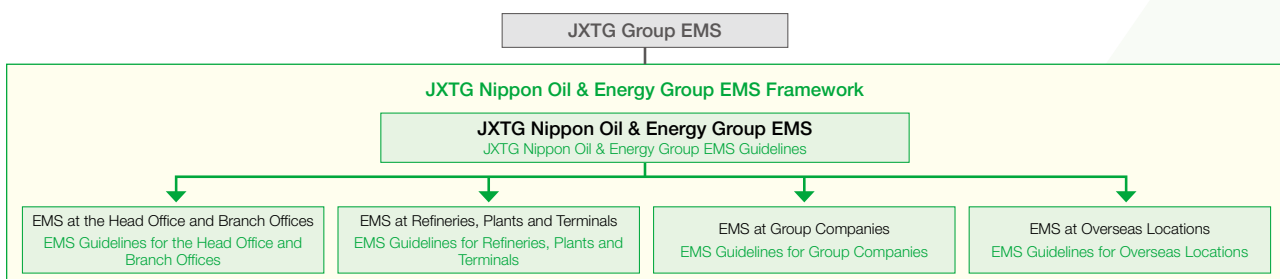
We will follow the basic policy outlined below toward the development of a sustainable society.

1. **Comply with environmental laws and regulations.**
2. **Promote environmental preservation in our business activities.**
3. **Contribute to the formation of a low-carbon society.**
4. **Contribute to the formation of a recycling-oriented society.**

### Environmental Management System

The JXTG Nippon Oil & Energy Group has established the following Environmental Management System (EMS) to steadily execute the Medium-Term Environmental Management Plan created based on the JXTG Nippon Oil & Energy Group Environmental Policy. As part of our EMS operations, we have established environmental targets for each department, business site and Group company based on the Medium-Term Environmental Management Plan. Moreover, actions are being taken to achieve these targets following the plan-do-check-act (PDCA) cycle.

● Environmental Management System (EMS) Diagram



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	<b>Environmental Report</b>
----------------------------	--------------------------------	-------------------	----------------	---------------	-----------------------------

- **Environmental Management**
  - Overview of Our Environmental Impacts
  - Global Warming Prevention Measures
  - Biodiversity Preservation
  - Activities for Reducing Our Environmental Impacts
  - Developing and Supplying Environmentally-Friendly Products and Services
  - Environmental Measures at Our Refineries, Plants and Other Sites

## Medium-Term Environmental Management Plan (Fiscal 2017 to 2019)

We will implement the following Environmental Management Plan by complying with environmental laws and regulations and enhancing our environmental management system in order to contribute to the development of a sustainable society.

<b>Long-range Environmental Target (Fiscal 2030)</b>	We aim to reduce CO <sub>2</sub> emissions by 3.3 million tons compared to fiscal 2009 by the year 2030 through the promotion of energy saving measures at refineries and plants and promotion of sales and development of environmentally-friendly products including renewable energy.
--	--

### ● Priority Theme 1. Formation of a Low-carbon Society

Specific Measures	Specific Initiatives Aimed at Fiscal 2019
Promote energy saving measures at refineries and plants	● Cut CO <sub>2</sub> emissions by 950,000 tons compared to fiscal 2009 by promoting energy saving measures
Promote sales and development of environmentally-friendly products	● Cut customer CO <sub>2</sub> emissions by 1.15 million tons compared to fiscal 2009 by promoting sales and development of environmentally-friendly products
Develop hydrogen and renewable energy businesses	<ul style="list-style-type: none"> <li>● Expand our hydrogen station business</li> <li>● Contribute to technological innovation through the ENEOS Hydrogen Trust Fund</li> <li>● Advance our renewable energy business</li> </ul>

### ● Priority Theme 2. Formation of a Recycling-oriented Society

Specific Measures	Specific Initiatives Aimed at Fiscal 2019
Take steps to reduce waste	<ul style="list-style-type: none"> <li>● Maintain the Zero Emission Plus goals (waste-to-landfill ratio of less than 0.5%)</li> <li>● Reuse existing facilities when renovating service stations</li> </ul>

### ● Priority Theme 3. Promotion of Environmental Preservation

Specific Measures	Specific Initiatives Aimed at Fiscal 2019
Perform soil contamination surveys and take relevant measures	<ul style="list-style-type: none"> <li>● Implement measures to prevent oil leaks at service stations (install resin pipes and other measures)</li> <li>● Strengthen comprehensive inspections of daily facility management at service stations</li> <li>● Continue systematic soil surveys and countermeasures</li> </ul>
Implement activities that help preserve biodiversity	<ul style="list-style-type: none"> <li>● Maintain environment surrounding refineries and plants</li> <li>● Continue activities that benefit the environment</li> </ul>
Preserve the environment by seeking high-efficiency lighting	<ul style="list-style-type: none"> <li>● Raise the efficiency of lighting in offices by 83%</li> <li>● Adopt LED lighting when opening or renovating service stations</li> </ul>
Organize environmental education programs	● Enhance content of environmental education for Group employees

## Legal and Regulatory Compliance

Environmental laws and regulations are wide-ranging and include the Basic Environment Act, Air Pollution Control Act, Water Pollution Prevention Act, Soil Contamination Countermeasures Act and PRTR Law, which seek to prevent regional pollution, as well as the Law Concerning the Promotion of Measures to Cope with Global Warming and Act on the Rational Use of Energy. To comply with existing regulations, we carefully monitor our daily operations to ensure their level of impact remains within the limits of regulatory targets as well as local targets set by pollution prevention agreements with communities. To identify future trends in environmental regulations, the Safety, Health & Environment Department takes the lead in continuously monitoring public announcements by related ministries and developments in various committees. It also gathers information on commonly identified issues in the industry by participating in the committees of organizations such as the Petroleum Association of Japan and the Japan Petrochemical Industry Association .

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	<b>Environmental Report</b>
----------------------------	--------------------------------	-------------------	----------------	---------------	-----------------------------

- **Environmental Management**
  - Overview of Our Environmental Impacts
  - Global Warming Prevention Measures
  - Biodiversity Preservation
  - Activities for Reducing Our Environmental Impacts
  - Developing and Supplying Environmentally-Friendly Products and Services
  - Environmental Measures at Our Refineries, Plants and Other Sites

## ◆ Environmental Communication

The JXTG Nippon Oil & Energy Group regularly publishes the “Kankyo Kawaraban (Environment News Sheet)” to share information on the Group’s initiatives and environmental regulations. It also organizes e-learning courses to deepen environmental awareness among its employees.



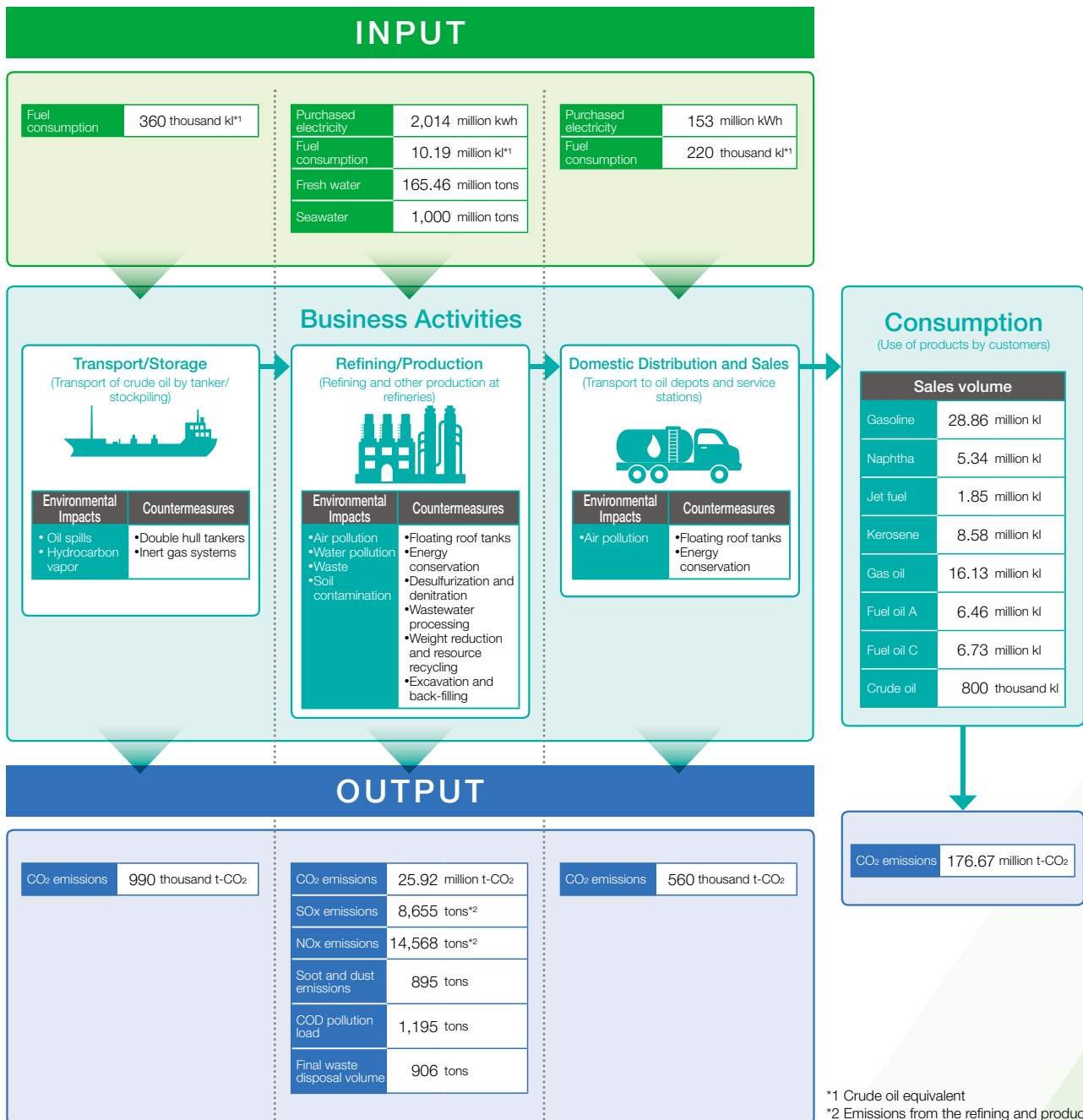
Kankyo Kawaraban

Environmental Management | **Overview of Our Environmental Impacts** | Global Warming Prevention Measures | Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts | Developing and Supplying Environmentally-Friendly Products and Services  
 Environmental Measures at Our Refineries, Plants and Other Sites

# Overview of Our Environmental Impacts

## Material Balance

The following figure illustrates our environmental impacts in fiscal 2016 throughout the entire supply chain, from transport and storage to consumption. The scope includes JXTG Nippon Oil & Energy and its main affiliates.



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	Environmental Report
----------------------------	--------------------------------	-------------------	----------------	---------------	----------------------

Environmental Management   ● **Overview of Our Environmental Impacts**   Global Warming Prevention Measures   Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts   Developing and Supplying Environmentally-Friendly Products and Services  
 Environmental Measures at Our Refineries, Plants and Other Sites

## JXTG Nippon Oil & Energy's Supply Chain Emissions

Supply chain emissions include not only a company's own emissions (Scope 1 + Scope 2) but also all greenhouse gas emissions across the entire supply chain, including other indirect emissions (Scope 3) from both the company's upstream and downstream operations.

● Breakdown of Greenhouse Gas Emissions from the Supply Chain in Fiscal 2016

	Category	CO <sub>2</sub> emissions (10 thousand tons)	Ratio (%)	
Scope 3	Upstream	1. Purchased goods and services	1,996	8.8
		2. Capital goods	-	-
		3. Fuels not included in Scope 1 or Scope 2	-	-
		4. Upstream transportation and distribution	354	1.6
		5. Waste generated in operations	2	0.0
		6. Business travel	0	0.0
		7. Employee commuting	0	0.0
		8. Upstream leased assets	-	-
Scope 1 and Scope 2	Company emissions	2,530	11.2	
Scope 3	Downstream	9. Downstream transportation and distribution	48	0.2
		10. Processing of sold products	-	-
		11. Use of sold products	17,667	78.0
		12. End-of-life treatment of sold products	-	-
		13. Downstream leased assets	-	-
		14. Franchises	41	0.2
		15. Investments	-	-
<b>Total</b>		22,638	100.0	



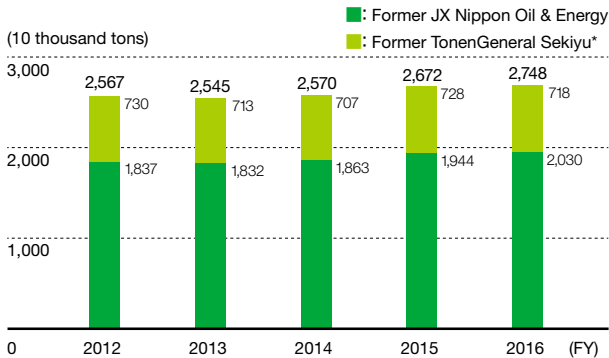
# Global Warming Prevention Measures

## Fundamental Approach

The JXTG Nippon Oil & Energy Group gives due consideration to the environmental impact caused by the energy consumption across its supply chain. As a comprehensive energy company, we strive to reduce our emissions of greenhouse gases and prevent global warming by improving energy efficiency in the refining and production phases, which represent our core business activities, reducing fuel consumption during product transport and providing products such as environmentally-friendly lubricants.

### Efforts to Reduce CO<sub>2</sub> Emissions

● CO<sub>2</sub> Emissions



Note: Data for the former TonenGeneral Sekiyu represents emissions from its four refineries and Tonen Chemical Corporation.

● Measures for Refining

Approximately 80% of the JXTG Nippon Oil & Energy Group's CO<sub>2</sub> emissions occur during the refining process. Therefore, we consider improving the efficiency of energy consumption during the refining process to be an extremely important issue, which we are addressing through various energy conservation activities. These include developing and introducing the latest technologies, improving production processes and reducing heat loss.

Message from the President | About JXTG Nippon Oil & Energy | Management System | CSR Management | Social Report | **Environmental Report**

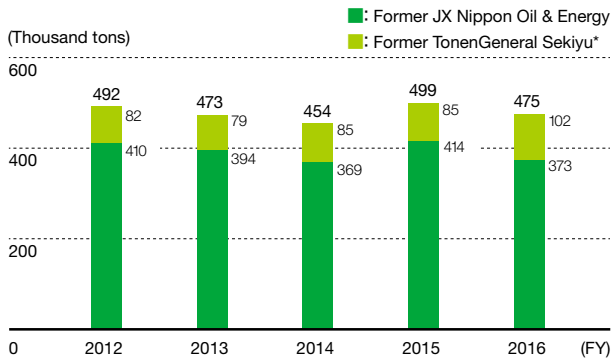
Environmental Management | Overview of Our Environmental Impacts | **Global Warming Prevention Measures** | Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts | Developing and Supplying Environmentally-Friendly Products and Services  
 Environmental Measures at Our Refineries, Plants and Other Sites

● **Measures for Logistics**

The JXTG Nippon Oil & Energy Group is working to reduce fuel consumption based on Japan’s revised Energy Saving Act through measures such as optimizing transport routes, consolidating oil depots and increasing the size of tank trucks and oil tankers. We are also making a committed effort to reduce vehicle idling.

In fiscal 2016, our CO<sub>2</sub> emissions associated with fuel consumption in domestic transport declined from the previous year to 475 thousand tons due to changes in transport volume.

● **CO<sub>2</sub> Emissions from Domestic Transport**



Note: Data for the former TonenGeneral Sekiyu represents emissions from its four refineries and Tonen Chemical Corporation.

● **Investment in Japan CCS Co., Ltd.**

The acronym CCS\* refers to technologies for separating and capturing large amounts of CO<sub>2</sub> produced from oil and gas fields, plants or thermal power plants and then injecting this CO<sub>2</sub> at a depth of more than 1,000 meters underground for storage.

These technologies help to reduce large amounts of CO<sub>2</sub> emissions before they enter the atmosphere, making them both highly practical and fast-acting. Nevertheless, research is still needed in the development of low-cost CO<sub>2</sub> separation and capturing technologies as well as the assessment of geological strata that can safely and securely store the carbon. As a result, verification testing projects are now underway around the world.

Japan CCS Co., Ltd. was established in May 2008 under the initiative of Japan’s Ministry of Economy, Trade and Industry. JXTG Nippon Oil & Energy made an investment in Japan CCS Co., Ltd. as its founding corporate investor in order to support the commercialization of CCS technologies that help reduce CO<sub>2</sub> emissions in Japan. Today we continue to be involved in its business operations. Japan CCS now has a total of 35 corporate investors, which include companies from the power and petroleum development sectors.

As part of a test project begun in fiscal 2012 in Tomakomai, Hokkaido, facilities for the separation and capture of CO<sub>2</sub> were constructed and wells for the injection of CO<sub>2</sub> were excavated. Work has also been completed on two storage layers at depths of around 1,000 meters and 3,000 meters under the seabed within the coastal region of Tomakomai Port.

In April 2016, injections commenced into one of these layers, and the total volume of CO<sub>2</sub> injected had reached 69,070 tons by August 2017.

\*Carbon dioxide capture and storage

# Biodiversity Preservation

## Fundamental Approach

The JXTG Nippon Oil & Energy Group has established the “JXTG Nippon Oil & Energy Group Guidelines on Biodiversity.” In accordance with our fundamental policy, which states, “We will take measures with respect to biodiversity in every aspect of our business activities under the recognition that these activities are deeply related to the Earth’s biodiversity,” we will ascertain and analyze the impacts of our business activities on biodiversity, strive to make improvements and implement social contribution activities that contribute to biodiversity preservation, such as nature protection and environmental education.

### Guidelines on Biodiversity

#### Basic Stance

We will take measures with respect to biodiversity in every aspect of our business activities under the recognition that these activities are deeply related to the Earth’s biodiversity.

#### Action Policy

1. We will ascertain and analyze the impacts of our business activities on biodiversity and strive to make improvements.
2. We will implement social contribution activities that contribute to biodiversity preservation, such as nature protection and environmental education.
3. We will present and share information on our efforts to preserve biodiversity.

### Measures to Preserve Biodiversity

As part of its efforts to protect biodiversity through green space management, the Chita Plant is a member of the “Ecological Network Formation and Leadership Development Program for Corporate Green Spaces in the Coastal Area of Chita Peninsula” and the “Project Linking Life with One Another,” which involve partnerships among Aichi Prefecture, Chita City, NPOs, students and companies located along the coastal area. Through these organizations, participants seek to utilize corporate greenbelts and other areas to provide a safe and secure habitat for local flora and fauna.

The Wakayama Refinery is taking action in line with the Biodiversity Strategy of Wakayama Prefecture. It engages in activities in the surrounding area that contribute to preserving biodiversity, including a tangerine orchard patrol, sea patrol, Jinoshima Island cleanup and tangerine orchard cleanup.

Since 2016, the Negishi Refinery has also been working on the creation of a greenbelt and reservoir on its grounds with the goal of conserving biodiversity in the area. Surrounded by the vibrant Sankei-en Garden, hilly areas that maintain the natural topography, and Tokyo Bay, the refinery aims to become a hub for the local ecosystem in the future.

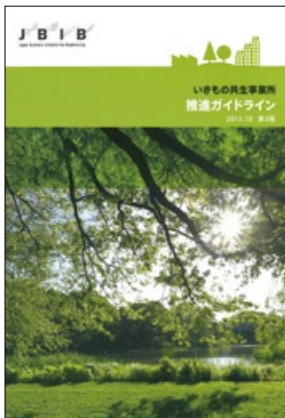
Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	<b>Environmental Report</b>
----------------------------	--------------------------------	-------------------	----------------	---------------	-----------------------------

- Environmental Management
- Overview of Our Environmental Impacts
- Global Warming Prevention Measures
- Biodiversity Preservation**
- Activities for Reducing Our Environmental Impacts
- Developing and Supplying Environmentally-Friendly Products and Services
- Environmental Measures at Our Refineries, Plants and Other Sites

## Working with Other Companies (Involvement in JBIB)

JXTG Nippon Oil & Energy has been a member of the Japan Business Initiative for Biodiversity (JBIB)\*, a leading business initiative for biodiversity in Japan, since 2013. As part of our involvement, along with a number of other companies from the energy sector, we are researching guidelines and tools that companies can effectively utilize to protect biodiversity.

\* JBIB was established in 2008 as an organization for companies to work together proactively toward the common goal of biodiversity protection. Currently, improvements are being made to greenery at the Chita Plant based on a biodiversity assessment carried out in compliance with the JBIB Guidelines for Sustainable Business Sites developed by JBIB.



JBIB Guidelines

# Activities for Reducing Our Environmental Impacts

## Fundamental Approach

The JXTG Nippon Oil & Energy Group engages in business operations fully cognizant of the impacts they have on the Earth's environment and is proactively working to reduce waste and its burden on the natural environment, including soil, air and water.

### Soil Contamination Surveys and Countermeasures

The JXTG Nippon Oil & Energy Group performs systematic surveys on all land that carries the potential for soil or groundwater contamination and initiates proper countermeasures when needed to address pollution. We are working to prevent soil contamination by enhancing regular inspections of our equipment as well as upgrading facilities where applicable.

● Soil Surveys and Countermeasures in Fiscal 2016

	Surveys		Countermeasures	
	Number of cases	Expenditure (million yen)	Number of cases	Expenditure (million yen)
Service stations	174	243	50	716
Oil depots	7	23	0	0
Refineries/Terminals	12	23	0	0
<b>Total</b>	<b>193</b>	<b>289</b>	<b>50</b>	<b>716</b>

● Disclosures of Soil Contamination at Company Property in Fiscal 2016

Category	Location	Survey Results				Status
		Soil		Groundwater		
		Substance	Scale factor	Substance	Scale factor	
Idle Land	Aichi	-	-	Benzene	15	Countermeasures completed
	Hokkaido	Benzene	110	Benzene	1,100	Countermeasures currently being implemented

● Measures for Preserving Soil and Groundwater Environments

We are actively protecting the soil and groundwater environments at our operational sites and the surrounding areas.

Since the enforcement of the Soil Contamination Countermeasures Act in 2003, corporate responsibility for the environment has become increasingly important. We have voluntarily implemented a number of steps from a variety of perspectives to minimize our environmental impact, from upgrading facilities and improving operations management to conducting environmental surveys and purification work.

**Waste Reduction Measures**

The JXTG Nippon Oil & Energy Group is working to reduce its waste-to-landfill ratio by properly managing waste and recycling in order to fulfill the vision of a sustainable, recycling-oriented society.

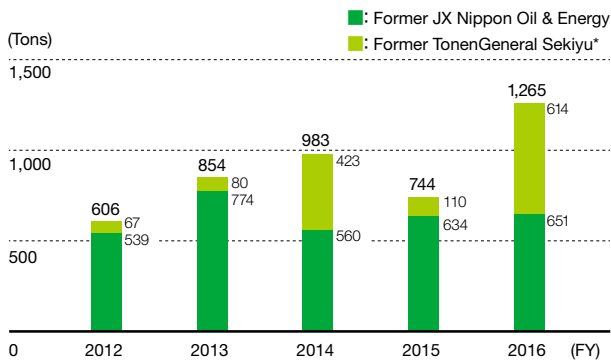
● **Reducing Our Waste-to-Landfill Ratio**

The JXTG Nippon Oil & Energy Group engages in Zero Emission Plus\* activities that help reduce its waste-to-landfill ratio. The industrial waste discharged from our refineries and petrochemical plants primarily consists of oil-bearing sludge discharged during the cleaning of equipment and tanks, spent catalysts, and sludge from wastewater treatment equipment. We are actively working to reduce the volume of and recycle sludge, waste acid, collected particulate matter, and waste catalysts.

In fiscal 2016, our final disposal rate was 0.346%, indicating that we have continued to achieve the Zero Emission Plus target.

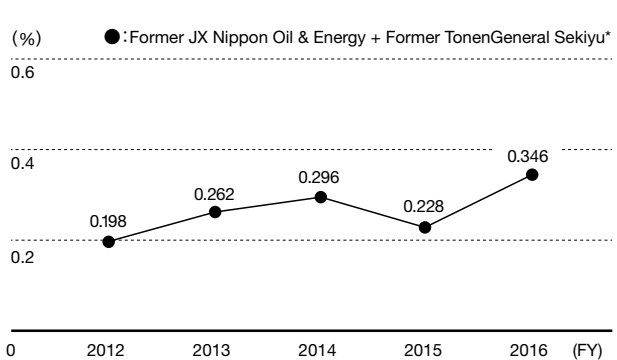
\*Final waste disposal volume ÷ Total waste produced < 0.5%

● **Final Waste Disposal Volume**



\*Data for the former TonenGeneral Sekiyu represents emissions from its four refineries and Tonen Chemical Corporation.

● **Waste-to-Landfill Ratio**



● **Waste Recycling**

We recycle the following waste using the most ideal method for each.

1. **Sludge**

Sludge produced from water treatment processes is mainly recycled as a raw material for cement after it is dehydrated and dried.

2. **Waste acid (waste vitriol)**

Vitriol used to make high-octane gasoline is recycled by special recycling service providers after use.

3. **Collected particulate matter**

Particulate matter contained in flue gas is collected using an electrostatic precipitator and recycled as a raw material for cement. After undergoing thermal recycling\*, collected particulate matter can also be recycled for use in roadbed materials.

4. **Waste catalysts**

Catalysts used during the desulfurization process for crude oil eventually lose activity and become waste catalysts. Useful metals such as vanadium and molybdenum contained in waste catalysts are collected and recycled to every extent possible by metal collection and processing companies.

5. **Waste asbestos**

Insulation containing asbestos collected during the maintenance and repair of equipment is melted down to render it harmless and then recycled in roadbed materials.

\*The act of capturing energy emitted during the waste incineration process and using it to generate electricity.

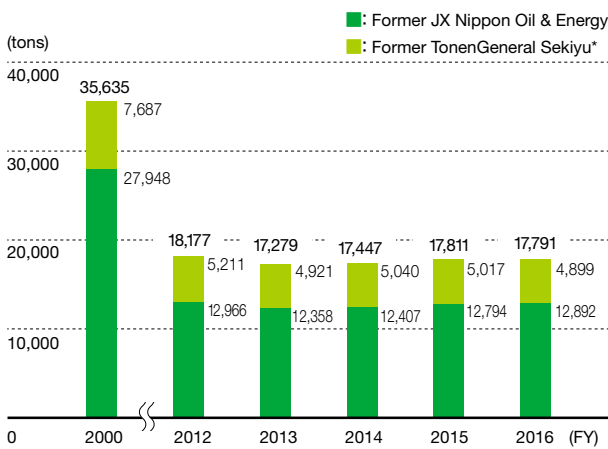
**◆ Volatile Organic Compound (VOC) Reduction Measures**

Volatile organic compounds (VOCs) are thought to cause urban ozone through a photochemical reaction with nitrogen oxide (NOx) and ultraviolet rays from sunlight. The Japanese government set a requirement for the oil industry to reduce VOC emissions by 30% from fiscal 2000 levels. By fiscal 2010, the JXTG Nippon Oil & Energy Group had achieved VOC emission reductions exceeding the government target.

In fiscal 2016, emissions totaled 17,791 tons, representing a 50% reduction from fiscal 2000 levels.

We will continue to limit VOC emissions by maintaining and managing reduction measures.

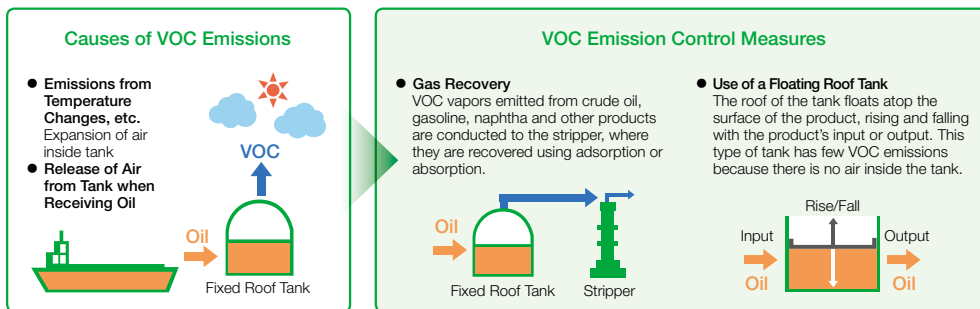
● VOC Emissions from Our Refineries and Oil Depots



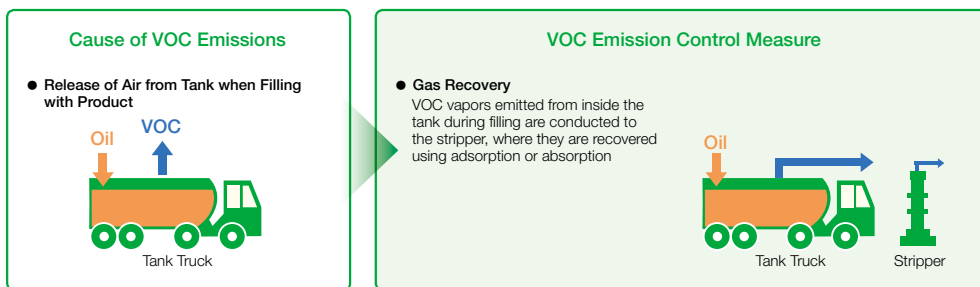
\*Data for the former TonenGeneral Sekiyu represents emissions from its four refineries and Tonen Chemical Corporation.

● VOC Emissions and Control Measures at Refineries and Oil Depots

**Storage Tank**



**Shipment Facilities**



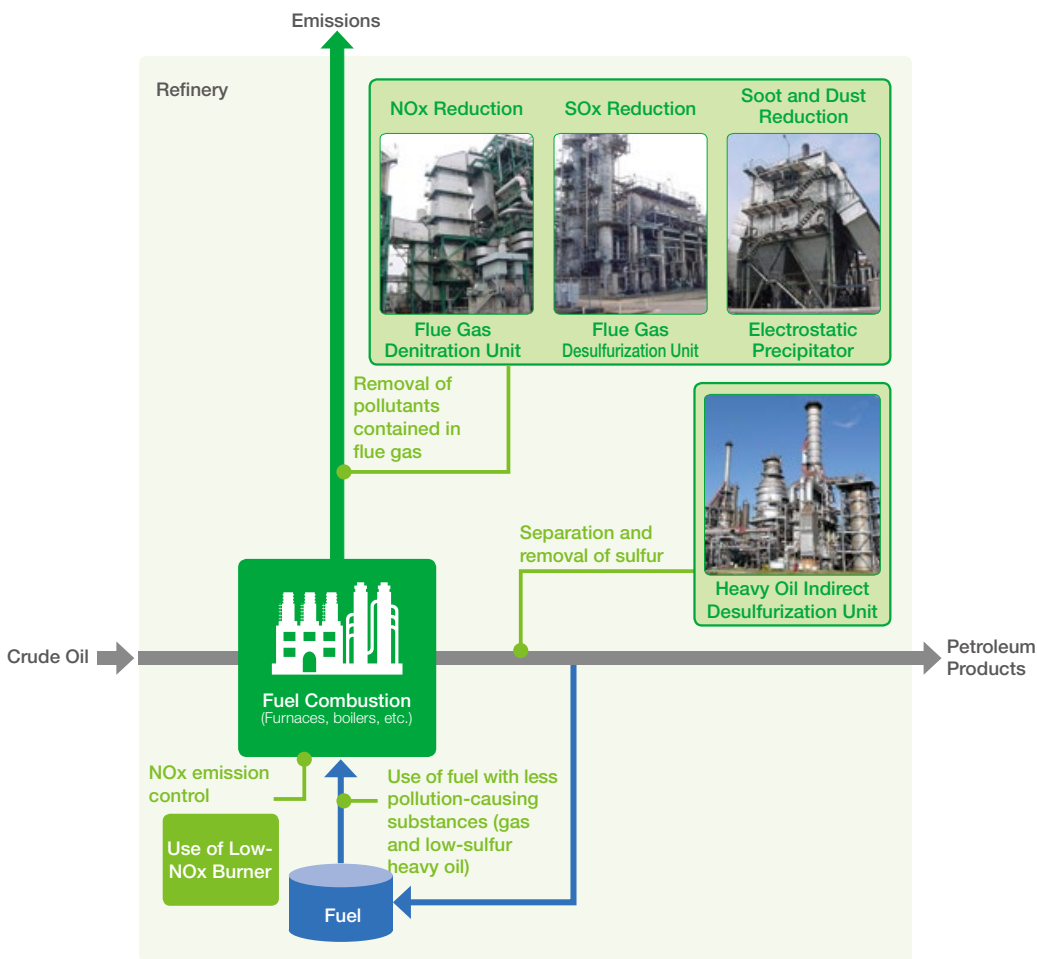
## Air Pollution Prevention Measures

The JXTG Nippon Oil & Energy Group has initiated a wide range of measures to help control its release of air pollutants, such as SO<sub>x</sub>, NO<sub>x</sub> and soot and dust, into the atmosphere.

### ● Controlling the Release of Air Pollutants

The petroleum product manufacturing process consumes fuel as the necessary energy for distillation and chemical reactions. Sulfur oxides and other air pollutants are released when impurities found in this fuel are incinerated during the fuel consumption process.

The JXTG Nippon Oil & Energy Group constantly monitors emissions of these pollutants and takes the following steps to control their release into the atmosphere.



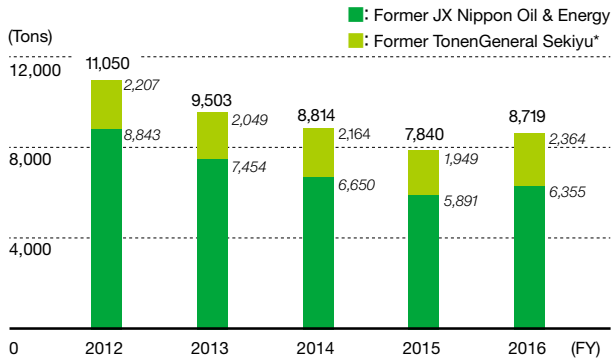


Environmental Management | Overview of Our Environmental Impacts | Global Warming Prevention Measures | Biodiversity Preservation  
 ● **Activities for Reducing Our Environmental Impacts** | Developing and Supplying Environmentally-Friendly Products and Services  
 Environmental Measures at Our Refineries, Plants and Other Sites

● **Reducing Sulfur Oxide (SOx) Emissions**

We use low-sulfur gas in our furnaces. We also use a desulfurization unit to cleanse SOx in flue gas produced from our furnaces and boilers, which has enabled us to reduce our emissions significantly below the regulatory limit.

● SOx Emissions

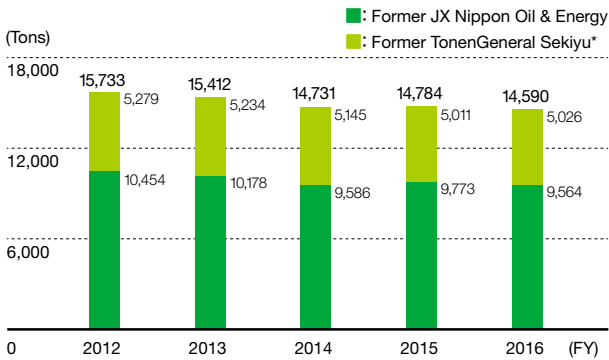


\*Data for the former TonenGeneral Sekiyu represent emissions from its four refineries and Tonen Chemical Corporation.

● **Reducing Nitrogen Oxide (NOx) Emissions**

We use low-nitrogen fuel in our furnaces and boilers as well as low-NOx burners that prevent the generation of NOx in combustion furnaces. We also use a desulfurization unit to cleanse flue gas, which has enabled us to reduce our emissions significantly below the regulatory limit.

● NOx Emissions

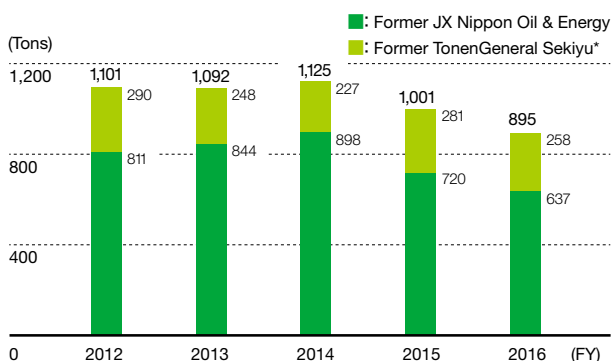


\*Data for the former TonenGeneral Sekiyu represent emissions from its four refineries and Tonen Chemical Corporation.

● **Reducing Soot and Dust Emissions**

We have installed electrostatic precipitators on boilers that use large amounts of heavy oil in order to reduce soot and dust emissions.

● Soot and Dust Emissions

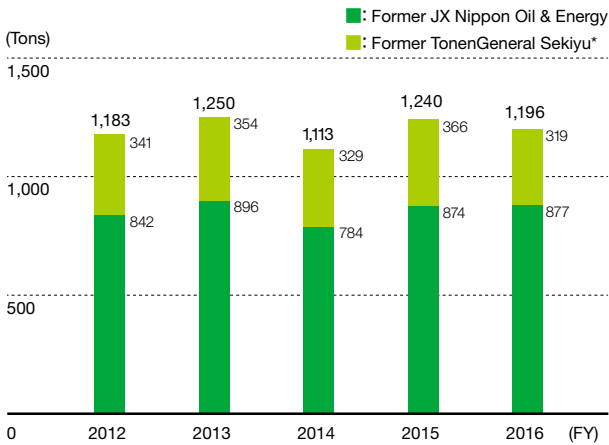


\*Data for the former TonenGeneral Sekiyu represent emissions from its four refineries and Tonen Chemical Corporation.

## Water Contamination Prevention Measures

The JXTG Nippon Oil & Energy Group has initiated a wide range of measures for preventing water contamination.

### ● COD Pollution Load

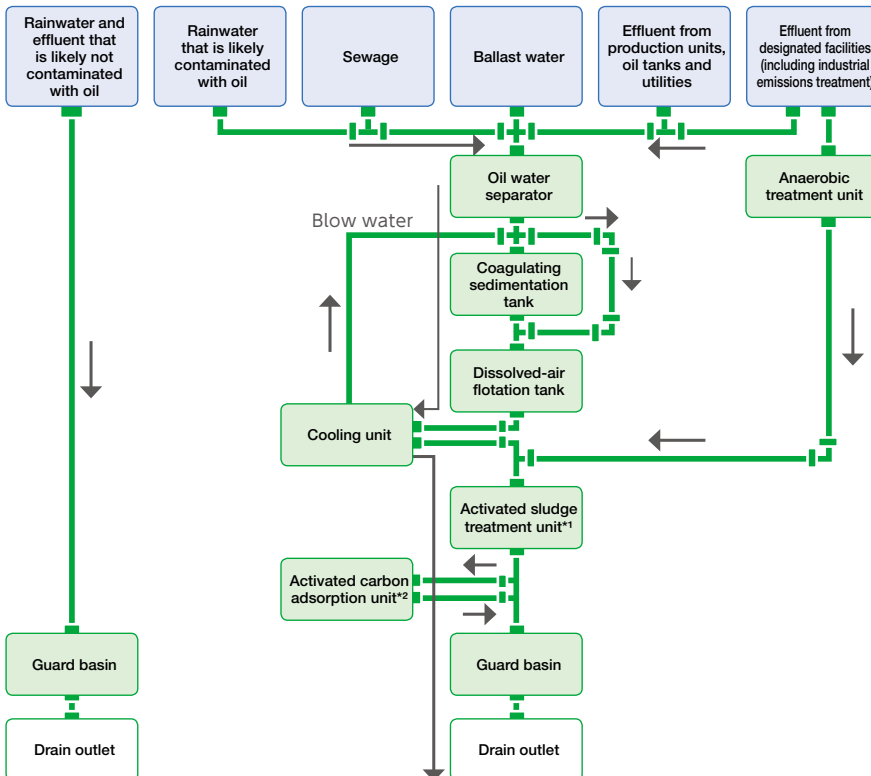


\*Data for the former TonenGeneral Sekiyu represent emissions from its four refineries and Tonen Chemical Corporation.

### ● Measures at Refineries

#### Effluent Control

Effluent from our refineries is treated according to the system illustrated in the figure below. We carefully monitor the status of effluent treatment using indicators that show pollution concentration such as chemical oxygen demand (COD).



\*1 Activated sludge treatment unit



\*2 Activated carbon adsorption unit

## Management of Chemical Substances

The JXTG Nippon Oil & Energy Group is firmly committed to the proper management of chemical substances.

### ● Monitoring and Managing the Release and Transfer Amounts of Chemical Substances Reporting under Japan’s Pollutant Release and Transfer Register Act

We have been reporting the release and transfer amounts of designated chemical substances under Japan’s Pollutant Release and Transfer Register Act (PRTR Act) since April 2001. In fiscal 2016, we released and transferred a total of 1,460 tons of benzene, toluene and xylene, each an additive in gasoline, mainly into the air or water.

(Tons)

		FY2012	FY2013	FY2014	FY2015	FY2016
Benzene	Former JX Nippon Oil & Energy	46	51	63	49	57
	Former TonenGeneral Sekiyu*	18	21	9	17	17
	<b>Total</b>	<b>64</b>	<b>72</b>	<b>72</b>	<b>66</b>	<b>74</b>
Toluene	Former JX Nippon Oil & Energy	194	171	170	196	225
	Former TonenGeneral Sekiyu*	48	51	39	48	48
	<b>Total</b>	<b>242</b>	<b>222</b>	<b>209</b>	<b>244</b>	<b>273</b>
Xylene	Former JX Nippon Oil & Energy	79	107	104	113	138
	Former TonenGeneral Sekiyu*	48	46	37	43	40
	<b>Total</b>	<b>127</b>	<b>153</b>	<b>141</b>	<b>156</b>	<b>178</b>

\*Data for the former TonenGeneral Sekiyu represent emissions from its four refineries and Tonen Chemical Corporation.

## Reducing the Environmental Impacts of Our Offices

The JXTG Nippon Oil & Energy Group is actively working to reduce the environmental impacts of its offices by promoting energy conservation, reducing waste and implementing green procurement.

### ● Energy Conservation in Our Offices

Our offices have initiated a variety of energy conservation measures, including automatic turning off of lights during lunchtime, curbing electricity consumption of equipment not being used, changing room temperature settings and easing dress code requirements in the summer as part of our Cool Biz program. In addition, we are converting to high-efficiency lighting at the offices of our refineries and plants.

### ● Reducing Waste from Our Offices

We are actively working to reduce waste produced at our head office and branch offices, through efforts such as following proper sorting and collection practices and reducing paper waste. We strive to reduce paper waste by adopting short-focus projectors and large-sized displays for conference rooms. We also collect waste oil and used oil filters at our service stations.

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	<b>Environmental Report</b>
----------------------------	--------------------------------	-------------------	----------------	---------------	-----------------------------


Environmental Management    Overview of Our Environmental Impacts    Global Warming Prevention Measures    Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts    ● Developing and Supplying Environmentally-Friendly Products and Services  
 Environmental Measures at Our Refineries, Plants and Other Sites

# Developing and Supplying Environmentally-Friendly Products and Services

## F u n d a m e n t a l    A p p r o a c h

The JXTG Nippon Oil & Energy Group has established its own standards for environmentally-friendly products in order to contribute to environmental protection. We are also working diligently to reduce impacts on the environment through the development and sale of environmentally-friendly products and services.

### Environmentally-Friendly Products and Services

 JXTG Nippon Oil & Energy's environmentally-friendly products and services  
 (<https://www.no.ejxtg-group.co.jp/ecoproducts/>) (available only in Japanese)

● Environmental Measures at Our Refineries, Plants and Other Sites

# Environmental Measures at Our Refineries, Plants and Other Sites

Each of our refineries and plants is working to prevent air and water pollution by formulating its own environmental policy, obtaining ISO certification for the environment and concluding agreements with local communities for the protection of the environment.

## Environmental Measures at Our Refineries, Plants and Other Sites

Visit the following link to learn more about the environmental measures at each of our refineries and plants.

<https://www.noe.jxtg-group.co.jp/company/about/branch/> (available only in Japanese)

## Refineries

### ● Sendai Refinery

**Address:** 5-1-1 Minato, Miyagino-ku, Sendai City, Miyagi 985-0901, Japan  
**Phone:** 81-22-363-1111  
**Start of operations:** 1971  
**Site area:** Approximately 1,500,000 m<sup>2</sup>  
**Crude oil processing capacity:** 145,000 barrels/day

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	1,202	1,105	1,163	1,027	1,036
		SOx	775	776	899	539	556
		Soot and dust	57	58	53	54	35
Water		COD	34	32	34	27	29
PRTR	Total volume of release and transfer	Benzene	5.2	2.8	4.0	4.0	4.3
		Toluene	20.7	10.7	13.3	11.2	10.1
		Xylene	3.2	1.9	2.9	2.9	3.2
Waste	Volume of waste generated		35,098	34,113	39,103	36,248	42,843
	Final waste disposal volume		21	56	54	26	13

### ● Chiba Refinery

**Address:** 1 Chigusa Kaigan, Ichihara City, Chiba 299-0108, Japan  
**Phone:** 81-436-23-9580  
**Start of operations:** 1968  
**Site area:** 1,440,000 m<sup>2</sup>  
**Crude oil processing capacity**  
 (atmospheric distillation unit): 129,000 barrels/day

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	825	776	766	713	694
		SOx	697	609	637	601	547
		Soot and dust	30	42	44	39	34
Water		COD	24	24	25	26	19
PRTR	Total volume of release and transfer	Benzene	0.6	0.6	0.5	0.5	0.4
		Toluene	5.7	5.5	4.3	3.6	3.5
		Xylene	1.5	1.4	1.2	0.9	1.1
Waste	Volume of waste generated		16,360	15,805	15,942	15,848	15,913
	Final waste disposal volume		6	24	1	1	57

● Environmental Measures at Our Refineries, Plants and Other Sites

● Kawasaki Refinery

The Kawasaki Refinery and Tonen Chemical Kawasaki Plant are located on the same site.

**Address:** 7-1 Ukishima-cho, Kawasaki-ku, Kawasaki City, Kanagawa 210-8523, Japan  
**Phone:** 81-44-288-8301  
**Start of operations:** 1960  
**Site area:** 2,050,000 m<sup>2</sup>  
**Crude oil processing capacity**  
 (atmospheric distillation unit): 235,000 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	866	892	876	970	790
		SOx	9	21	11	14	28
		Soot and dust	43	40	48	63	42
Water		COD	241	263	232	271	228
PRTR	Total volume of release and transfer	Benzene	2.0	3.0	2.8	3.7	3.6
		Toluene	6.3	7.9	7.7	9.2	11.0
		Xylene	2.9	3.6	3.2	3.4	2.4
Waste	Volume of waste generated		15,544	19,874	25,772	25,814	35,026
	Final waste disposal volume		0	0	55	14	147

● Negishi Refinery

**Address:** 1-1 Otori-cho, Isogo-ku, Yokohama City, Kanagawa 235-0006, Japan  
**Phone:** 81-45-757-7111  
**Start of operations:** 1964  
**Site area:** 2,200,000 m<sup>2</sup>  
**Crude oil processing capacity:** 270,000 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	270	308	302	331	294
		SOx	393	459	504	526	466
		Soot and dust	21	33	26	29	28
Water		COD	69	63	66	62	64
PRTR	Total volume of release and transfer	Benzene	2.6	3.6	2.4	2.7	2.5
		Toluene	9.4	9.4	7.4	9.1	6.8
		Xylene	2.2	2.7	2.0	2.6	2.0
Waste	Volume of waste generated		27,923	26,893	29,055	29,544	32,724
	Final waste disposal volume		23	28	31	69	34

● Sakai Refinery

**Address:** 1 Chikko Hamadera-cho, Nishi-ku, Sakai City, Osaka 592-8550, Japan  
**Phone:** 81-72-269-2011  
**Start of operations:** 1965  
**Site area:** 770,000 m<sup>2</sup>  
**Crude oil processing capacity**  
 (atmospheric distillation unit): 135,000 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	412	374	385	342	381
		SOx	64	59	59	68	120
		Soot and dust	11	11	11	14	19
Water		COD	22	19	19	21	18
PRTR	Total volume of release and transfer	Benzene	1.7	1.6	1.6	1.6	1.7
		Toluene	6.6	5.8	5.3	5.2	5.5
		Xylene	4.3	3.7	3.9	4.0	4.0
Waste	Volume of waste generated		3,670	4,391	3,482	5,851	4,086
	Final waste disposal volume		44	23	30	95	111

● Wakayama Refinery

**Address:** 1000 Hama, Hatsushima-cho, Arida City, Wakayama 649-0393, Japan  
**Phone:** 81-737-85-1010  
**Start of operations:** 1941  
**Site area:** 2,480,000 m<sup>2</sup>  
**Crude oil processing capacity**  
 (atmospheric distillation unit): 127,500 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	2,182	2,166	2,127	1,998	2,183
		SOx	1,364	1,311	1,374	1,227	1,610
		Soot and dust	149	98	72	103	97
Water		COD	55	49	53	48	54
PRTR	Total volume of release and transfer	Benzene	3.7	4.0	3.8	3.3	3.5
		Toluene	28.0	30.0	22.0	29.0	27.0
		Xylene	39.0	37.0	29.0	35.0	32.0
Waste	Volume of waste generated		23,569	20,034	21,193	21,332	27,160
	Final waste disposal volume		17	33	337	0	289

Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	<b>Environmental Report</b>
----------------------------	--------------------------------	-------------------	----------------	---------------	-----------------------------

Environmental Management    Overview of Our Environmental Impacts    Global Warming Prevention Measures    Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts    Developing and Supplying Environmentally-Friendly Products and Services

● Environmental Measures at Our Refineries, Plants and Other Sites

● Mizushima Refinery

**Mizushima-B Complex**  
 (Main building, Petrochemical Complex Area B)  
 Address: 2-1 Ushio-dori, Kurashiki City, Okayama 712-8588, Japan

**Mizushima-A Complex**  
 (Petrochemical Complex Area A)  
 Address: 4-2 Mizushima Kaigan-dori, Kurashiki City, Okayama 712-8558, Japan

Phone: 81-86-458-2511  
 Start of operations: 1961  
 Site area: 3,180,000 m<sup>2</sup>  
 Crude oil processing capacity: 320,200 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	2,516	2,707	2,780	2,490	2,865
		SOx	1,060	1,324	1,277	1,098	1,224
		Soot and dust	93	147	123	128	114
Water		COD	61	71	69	76	79
PRTR	Total volume of release and transfer	Benzene	0.7	0.6	0.6	1.3	1.4
		Toluene	13.3	3.9	4.8	34.6	30.5
		Xylene	45.4	49.0	48.0	55.1	62.0
Waste	Volume of waste generated		84,561	106,703	98,158	88,855	104,839
	Final waste disposal volume		189	492	288	364	175

● Marifu Refinery

Address: 6-1-1 Waki, Waki-cho, Kuga-gun, Yamaguchi 740-0061, Japan

Phone: 81-827-24-6100  
 Start of operations: 1943  
 Site area: 660,000 m<sup>2</sup>  
 Crude oil processing capacity: 120,000 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	1,250	1,206	1,348	1,151	1,149
		SOx	416	492	592	363	566
		Soot and dust	293	316	379	200	238
Water		COD	80	78	85	83	102
PRTR	Total volume of release and transfer	Benzene	3.1	4.7	5.8	4.6	4.2
		Toluene	13.1	10.4	11.4	11.7	10.4
		Xylene	1.8	3.9	4.6	3.9	4.8
Waste	Volume of waste generated		7,511	9,044	7,524	7,100	6,870
	Final waste disposal volume		0	0	1.69	0	0

● Oita Refinery

Address: 1-1 O-aza Ichinosu, Oita City, Oita 870-0112, Japan

Phone: 81-97-523-2201  
 Start of operations: 1964  
 Site area: 1,010,000 m<sup>2</sup>  
 Crude oil processing capacity: 136,000 barrels/day

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	1,043	1,140	1,036	1,114	979
		SOx	1,386	1,131	758	858	821
		Soot and dust	37	76	56	38	56
Water		COD	27	23	19	22	23
PRTR	Total volume of release and transfer	Benzene	2.5	2.8	3.3	3.3	3.2
		Toluene	17.4	18.0	17.8	19.7	17.7
		Xylene	3.2	3.5	2.9	3.2	2.9
Waste	Volume of waste generated		15,598	14,296	14,926	19,762	19,026
	Final waste disposal volume		23	6	13	7	6

● Kashima Refinery

Address: 4 Towada, Kamisu City, Ibaraki 314-0198, Japan

Phone: 81-299-97-3111  
 Start of operations: 1970  
 Site area: Approximately 2,730,000 m<sup>2</sup>  
 Crude oil processing capacity: 197,100 barrels/day\*

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	1,477	1,181	1,025	1,259	1,324
		SOx	2,386	1,433	1,135	1,178	1,883
		Soot and dust	116	46	61	64	65
Water		COD	235	286	251	339	343
PRTR	Total volume of release and transfer	Benzene	4.1	5.1	8.2	6.5	6.5
		Toluene	5.8	8.1	5.8	11.4	10.9
		Xylene	1.3	24.5	24.6	26.1	37.9
Waste	Volume of waste generated		14,594	15,263	22,933	16,590	17,012
	Final waste disposal volume		0.30	0	0	0	0

\*Includes condensate capacity of 35,100 barrels/day

● Environmental Measures at Our Refineries, Plants and Other Sites

● Osaka Refinery

Address: 2-1 Takasago, Takaishi City, Osaka 592-0001, Japan  
 Phone: 81-72-268-3600  
 Start of operations: 1971  
 Site area: 1,290,000 m<sup>2</sup>  
 Crude oil processing capacity: 115,000 barrels/day

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	202	154	146	136	134
		SOx	14	1	4	15	3
		Soot and dust	2	2	1	1	1
Water		COD	8	6	6	0	0
PRTR	Total volume of release and transfer	Benzene	1.1	1.0	1.1	1.1	1.1
		Toluene	5.7	5.1	6.0	5.7	4.4
		Xylene	0.6	0.5	0.5	0.5	0.6
Waste	Volume of waste generated		25,279	26,252	21,869	23,944	23,879
	Final waste disposal volume		10	4	26	15	2

◆ Plants and Other Sites

● Muroran Plant

Address: 1-172 Jinyamachi, Muroran City, Hokkaido 050-0067, Japan  
 Phone: 81-143-55-1111  
 Start of operations: 1956  
 Site area: 1,030,000 m<sup>2</sup>  
 Cumene production capacity: 200,000 tons/year  
 Xylene production capacity: 397,785 tons/year

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	1,079	900	417	616	375
		SOx	1,705	1,206	880	825	549
		Soot and dust	147	97	152	141	67
Water		COD	178	185	102	78	104
PRTR	Total volume of release and transfer	Benzene	0.8	0.8	1.2	1.2	0.9
		Toluene	6.9	7.6	6.2	7.2	6.0
		Xylene	2.1	0.8	1.1	1.4	1.2
Waste	Volume of waste generated		11,173	9,571	8,993	9,843	7,800
	Final waste disposal volume		0	0	0	0	0

● Kawasaki Plant

Address: 2-3-1 Yako, Kawasaki-ku, Kawasaki City, Kanagawa 210-8545, Japan  
 Phone: 81-44-276-3511  
 Start of operations: 1955  
 Site area: 630,000 m<sup>2</sup>  
 Ethylene production capacity: 448,000 tons/year

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	617	678	684	653	474
		SOx	80	77	69	67	48
		Soot and dust	19	15	15	15	13
Water		COD	131	137	136	103	77
PRTR	Total volume of release and transfer	Benzene	5.6	7.0	6.8	6.5	7.2
		Toluene	2.1	2.7	2.2	2.1	2.4
		Xylene	3.6	4.9	4.2	4.5	4.2
Waste	Volume of waste generated		5,715	4,446	3,954	3,762	5,386
	Final waste disposal volume		26	14	5	3	6

● Yokohama Plant

Address: 3-390 Koyasu-dori, Kanagawa-ku, Yokohama City, Kanagawa 221-0021, Japan  
 Phone: 81-45-461-7111  
 Start of operations: 1922  
 Site area: 440,000 m<sup>2</sup>  
 Lubricant production capacity: 126,000 kl/year  
 Grease production capacity: 3,900 tons/year

			(Tons)				
			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	30	28	17	9	2
		SOx	4.7	1.6	0.3	0	0
		Soot and dust	8.0	9.4	8.6	3.3	0
Water		COD	—	—	—	—	—
PRTR	Total volume of release and transfer	Benzene	0.4	0.4	0.4	0.4	0.4
		Toluene	1.1	1.1	1.1	1.1	1.1
		Xylene	0.1	0.1	0.1	0.1	0.1
Waste	Volume of waste generated		1,654	1,823	1,898	1,174	1,298
	Final waste disposal volume		0.35	2	1	1	1



Message from the President	About JXTG Nippon Oil & Energy	Management System	CSR Management	Social Report	Environmental Report
----------------------------	--------------------------------	-------------------	----------------	---------------	----------------------

Environmental Management    Overview of Our Environmental Impacts    Global Warming Prevention Measures    Biodiversity Preservation  
 Activities for Reducing Our Environmental Impacts    Developing and Supplying Environmentally-Friendly Products and Services

● Environmental Measures at Our Refineries, Plants and Other Sites

● Chita Plant

**Address:** 25 Kitahama-machi, Chita City, Aichi 478-8504, Japan  
**Phone:** 81-562-32-3211  
**Start of operations:** 1973  
**Site area:** Approximately 1,300,000 m<sup>2</sup>  
**Paraxylene production capacity:** 400,000 tons/year  
**Cyclohexane production capacity:** 220,000 tons/year

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	354	383	338	369	271
		SOx	172	152	208	194	78
		Soot and dust	8	7	6	6	6
Water		COD	8	5	6	9	14
PRTR	Total volume of release and transfer	Benzene	3.4	6.8	4.4	3.3	4.3
		Toluene	2.4	2.8	4.5	4.9	4.2
		Xylene	2.0	2.5	1.2	1.5	1.9
Waste	Volume of waste generated		6,202	5,147	4,395	4,095	5,130
	Final waste disposal volume		1	1	1	1	1

● Tonen Chemical Kawasaki Plant

The Kawasaki Refinery and Tonen Chemical Kawasaki Plant are located on the same site.

**Address:** 7-1 Ukishima-cho, Kawasaki-ku, Kawasaki City, Kanagawa 210-8523, Japan  
**Phone:** 81-44-288-8301  
**Start of operations:** 1962  
**Site area:** 2,050,000 m<sup>2</sup>  
**Ethylene production capacity:** 540,000 tons/year

(Tons)

			FY2012	FY2013	FY2014	FY2015	FY2016
Air	Environmental impact	NOx	994	1,026	991	988	978
		SOx	73	49	83	39	59
		Soot and dust	57	57	52	62	66
Water		COD	0	0	0	0	0
PRTR	Total volume of release and transfer	Benzene	10.0	12.0	9.9	7.4	7.6
		Toluene	1.3	1.5	1.3	0.9	0.9
		Xylene	0.0	0.0	0.0	0.0	0.0
Waste	Volume of waste generated		111	247	576	257	582
	Final waste disposal volume		0	0	0	0	10

**GRI Sustainability Reporting Guidelines, Version 4**

This report contains information that corresponds to the standard disclosure categories under the GRI Sustainability Reporting Guidelines (G4).

General standard disclosures		Report page
<b>Strategy and Analysis</b>		
G4-1	A statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability	pp.01-04
G4-2	Provide a description of key impacts, risks, and opportunities.	pp.23-25
<b>Organizational Profile</b>		
G4-3	The name of the organization	p.07
G4-4	The primary brands, products, and services	pp.09-14
G4-5	The location of the organization's headquarters	p.07
G4-6	The number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	p.07
G4-7	The nature of ownership and legal form	p.07
G4-8	The markets served	pp.07-14
G4-9	The scale of the organization	p.07
G4-10	The breakdown of the employees	p.47
G4-11	The percentage of total employees covered by collective bargaining agreements	p.47
G4-12	The organization's supply chain	pp.09-10
G4-13	Any significant changes during the reporting period	Editorial policy
G4-14	Whether and how the precautionary approach or principle is addressed by the organization	p.30
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	p.30
G4-16	Memberships of associations and national or international advocacy organizations	-
<b>Identified material aspects and boundaries</b>		
G4-17	All entities included in the organization's consolidated financial statements or equivalent documents; whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report	p.07
G4-18	The process for defining the report content and the aspect boundaries; how the organization has implemented the reporting principles for defining report content	pp.28, 32
G4-19	All the material aspects identified in the process for defining report content	p.28
G4-20	The aspect boundary within the organization for each material aspect	p.28
G4-21	The aspect boundary outside the organization for each material aspect	p.28
G4-22	The effect of any restatements of information provided in previous reports, and the reasons for such restatements	Not applicable
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	Not applicable
<b>Stakeholder engagement</b>		
G4-24	A list of stakeholder groups engaged by the organization	p.12
G4-25	The basis for identification and selection of stakeholders with whom to engage	-
G4-26	The organization's approach to stakeholder engagement	p.12
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded; the stakeholder groups that raised each of the key topics and concerns	p.12
<b>Report profile</b>		
G4-28	Reporting period (such as fiscal or calendar year) for information provided	Editorial policy
G4-29	Date of most recent previous report (if any)	Editorial policy
G4-30	Reporting cycle (such as annual, biennial)	Editorial policy
G4-31	The contact point for questions regarding the report or its contents	Editorial policy
G4-32	The 'in accordance' option the organization has chosen; the GRI Content Index for the chosen option; the reference to the External Assurance Report, if the report has been externally assured	Not in accordance with the Guidelines. Instead, this table indicates the sections applicable to the Standard Disclosures
G4-33	The organization's policy and current practice with regard to seeking external assurance for the report	-
<b>Governance</b>		
G4-34	The governance structure of the organization; any committees responsible for decision-making on economic, environmental and social impacts	pp.16-17
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	pp.16-17

Indicator		Report page
G4-36	Delegation of responsibility for economic, environmental and social topics to executive and/or other positions, and process for directly reporting to the highest governance body	–
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics, delegation of consultation and feedback processes to the highest governance body	–
G4-38	Composition of the highest governance body and its committees	pp.16-17
G4-39	Whether the chair of the highest governance body is also an executive officer	p.17
G4-40	Nomination and selection processes for the highest governance body and its committees	–
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	–
G4-42	Roles of the highest governance body and senior executives in the organization’s actions related to economic, environmental and social impacts	pp.16-17 p.28
G4-43	Measures taken to develop and enhance the highest governance body’s collective knowledge of economic, environmental and social topics	–
G4-44	Performance evaluation process for the highest governance body with respect to governance of economic, environmental and social topics	pp.16-17
G4-45	The highest governance body’s role in the identification and management of economic, environmental and social impacts, risks, and opportunities, including the implementation of due diligence processes	pp.16-17
G4-46	The highest governance body’s role in reviewing the effectiveness of the organization’s risk management processes for economic, environmental and social topics	pp.16-17 pp.28-29
G4-47	The frequency of the highest governance body’s review of economic, environmental and social impacts, risks, and opportunities	pp.16-17 pp.28-29
G4-48	The highest committee or position that formally reviews and approves the organization’s sustainability report	pp.23-24
G4-49	The process for communicating critical concerns to the highest governance body	pp.16-17
G4-50	The nature and total number of critical concerns communicated to the highest governance body and the mechanism(s) used to address and resolve them	–
G4-51	Remuneration policies for the highest governance body and senior executives, and how performance criteria in the remuneration policy relate to the highest governance body’s and senior executives’ economic, environmental and social objectives	–
G4-52	The process for determining remuneration	–
G4-53	How stakeholders’ views are sought and taken into account regarding remuneration	–
G4-54	The ratio of the annual total compensation for the organization’s highest-paid individual to the median annual total compensation for all employees	–
G4-55	The ratio of percentage increase in annual total compensation for the organization’s highest-paid individual to the median percentage increase in annual total compensation for all employees	–
<b>Ethics and integrity</b>		
G4-56	The organization’s values, principles, standards and norms of behavior	pp.05-06
G4-57	The internal and external mechanisms for seeking advice on ethical and lawful behavior and matters related to organizational integrity	pp.21-22
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity	pp.21-22

Specific standard disclosures		Report page
<b>Disclosures on management approach</b>		
G4-DMA	Reasons why the Aspects are of material significance, impacts that affect judgment, approach to organizational management, and evaluation of management approach	pp.28-31
<b>Economic</b>		
<b>Economic performance</b>		
G4-EC1	Direct economic value generated and distributed	pp.05-06
G4-EC2	Financial implications and other risks and opportunities for the organization’s activities due to climate change	–
G4-EC3	Coverage of the organization’s defined benefit plan obligations	–
G4-EC4	Financial assistance received from government	–
<b>Market presence</b>		
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	–
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	–
<b>Indirect economic impacts</b>		
G4-EC7	Development and impact of infrastructure investments and services supported	pp.57-72
G4-EC8	Significant indirect economic impacts, including the extent of impacts	pp.57-72
<b>Procurement practices</b>		
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	–

Specific standard disclosures		Report page
<b>Environmental</b>		
<b>Materials</b>		
G4-EN1	Materials used by weight or volume	p.77
G4-EN2	Percentage of materials used that are recycled input materials	–
<b>Energy</b>		
G4-EN3	Energy consumption within the organization	p.77
G4-EN4	Energy consumption outside of the organization	pp.77-78
G4-EN5	Energy intensity	–
G4-EN6	Reduction of energy consumption	p.80
G4-EN7	Reductions in energy requirements of products and services	–
<b>Water</b>		
G4-EN8	Total water withdrawal by source	p.77
G4-EN9	Water sources significantly affected by withdrawal of water	–
G4-EN10	Percentage and total volume of water recycled and reused	–
<b>Biodiversity</b>		
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	p.81
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	–
G4-EN13	Habitats protected or restored	pp.60-63
G4-EN14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	–
<b>Emissions</b>		
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	pp.77-79
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	pp.77-79
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	pp.77-78, 80
G4-EN18	Greenhouse gas (GHG) emissions intensity	–
G4-EN19	Reduction of greenhouse gas (GHG) emissions	pp.79-80
G4-EN20	Emissions of ozone-depleting substances (ODS)	–
G4-EN21	NOx, SOx, and other significant air emissions	pp.85-87
<b>Effluents and waste</b>		
G4-EN22	Total water discharge by quality and destination	–
G4-EN23	Total weight of waste by type and disposal method	pp.77, 84
G4-EN24	Total number and volume of significant spills	p.83
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	–
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	–
<b>Products and services</b>		
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	p.42
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	–
<b>Compliance</b>		
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Not applicable
<b>Transport</b>		
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	–
<b>Overall</b>		
G4-EN31	Total environmental protection expenditures and investments by type	p.61

Specific standard disclosures		Report page
<b>Supplier environmental assessment</b>		
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	–
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	–
<b>Environmental grievance mechanisms</b>		
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	–
<b>Social</b>		
<b>Labor practices and decent work</b>		
<b>Employment</b>		
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	–
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	pp.51-53
G4-LA3	Return to work and retention rates after parental leave, by gender	p.51
<b>Labor/Management relations</b>		
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	–
<b>Occupational health and safety</b>		
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	–
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	p.35
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	–
G4-LA8	Health and safety topics covered in formal agreements with trade unions	–
<b>Training and education</b>		
G4-LA9	Average hours of training per year per employee by gender, and by employee category	–
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	–
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	pp.47-48
<b>Diversity and equal opportunity</b>		
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	pp.47, 49
<b>Equal remuneration for women and men</b>		
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	–
<b>Supplier assessment for labor practices</b>		
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	–
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	–
<b>Labor practices grievance mechanisms</b>		
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	–
<b>Human rights</b>		
<b>Investment</b>		
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	–
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	–
<b>Non-discrimination</b>		
G4-HR3	Total number of incidents of discrimination and corrective actions taken	–
<b>Freedom of association and collective bargaining</b>		
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Not applicable
<b>Child labor</b>		
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	Not applicable
<b>Forced or compulsory labor</b>		
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	Not applicable

Specific standard disclosures		Report page
<b>Security practices</b>		
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	–
<b>Indigenous rights</b>		
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	Not applicable
<b>Assessment</b>		
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	–
<b>Supplier human rights assessment</b>		
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	–
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	–
<b>Human rights grievance mechanisms</b>		
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	–
<b>Society</b>		
<b>Local communities</b>		
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	–
G4-SO2	Operations with significant actual and potential negative impacts on local communities	–
<b>Anti-corruption</b>		
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and significant risks identified	p.22
G4-SO4	Communication and training on anti-corruption policies and procedures	p.22
G4-SO5	Confirmed incidents of corruption and actions taken	Not applicable
<b>Public policy</b>		
G4-SO6	Total value of political contributions by country and recipient/beneficiary	–
<b>Anti-competitive behavior</b>		
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	Not applicable
<b>Compliance</b>		
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	Not applicable
<b>Supplier assessment for impacts on society</b>		
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	–
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	–
<b>Grievance mechanisms for impacts on society</b>		
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	–
<b>Product responsibility</b>		
<b>Customer health and safety</b>		
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	–
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcome	Not applicable
<b>Product and service labeling</b>		
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	p.42
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	Not applicable
G4-PR5	Results of surveys measuring customer satisfaction	–
<b>Marketing communications</b>		
G4-PR6	Sale of banned or disputed products	Not applicable
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcome	Not applicable
<b>Customer privacy</b>		
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	–
<b>Compliance</b>		
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Not applicable

# JXTG Nippon Oil & Energy Corporation

1-2 Otemachi 1-chome, Chiyoda-ku, Tokyo 100-8162,  
Japan  
<https://www.no.e.jxtg-group.co.jp/english/>



Mobil

