



CSR Report  
**2007**  
Corporate Social Responsibility Report

## Editorial Policy

---

Japan Energy published an Environmental Report in 2003 and 2004. It published a Social and Environmental Report in 2005 and last year published it as the CSR Report to reflect a widened scope of coverage. This report details the company's wide range of petroleum-related businesses, from exploration of petroleum to the sale of petroleum products at JOMO service stations. We have also strived to present the responsibilities and efforts of each of our business fields in an easy-to-understand format.

## Scope of the Report

---

This report covers basically the activities of Japan Energy Corporation. Financial data, however, covers Japan Energy Group consolidated companies. Environmental data and environmental accounting cover Japan Energy Corporation and Kashima Oil Co., Ltd.

## Period Covered by the Report

---

This report covers the CSR activities for FY2006 (April 1, 2006 to March 31, 2007). Some sections also cover activities in and after April 2007.

## Reference Guidelines

---

In this report, we referred to the Environmental Reporting Guidelines (FY2003 version), published by Japan's Ministry of the Environment, and the Sustainability Reporting Guidelines 2002, published by the Global Reporting Initiative (GRI). For environmental accounting, we referred to the Study on the Introduction of Environmental Accounting in the Petroleum Industry (2000), published by the Japan Petroleum Energy Center.

## Nippon Mining Holdings Group

The Nippon Mining Holdings Group, through its holding company Nippon Mining Holdings, Inc., carries out two major businesses: petroleum (Japan Energy) and metals (Nippon Mining & Metals Co., Ltd.). It is a comprehensive resources and energy group active in the fields of petroleum, petrochemicals, non-ferrous metals, and electronic materials. Through these businesses, it carries out its mission of efficient, stable provision of fundamental materials that support industries and individual lifestyles around the world.

The Nippon Mining Holdings Group is involved in a wide range of businesses. A unique corporate group with a variety of operations adapted to each field's stage of growth and business characteristics, its activities include everything from fundamental materials for infrastructure-building to leading-edge IT materials that drive the field of nanotechnology.

### Nippon Mining Holdings Group



# Contents

Top Message .....	3
Corporate Information .....	5
Management .....	7
Our Mission and Business Principles, Corporate Governance, Compliance and Risk Management	

## Feature 1 Our Mission as an Energy Company 11

### Our Responsibilities and Actions in the Supply Chain

Petroleum Exploration, Development and Production of Crude Oil, Crude Oil Transportation .....	13
Refining and Stockpiling, Manufacturing of Petroleum Products .....	15
Transportation in Japan, Delivery Terminals .....	17
Marketing of Petroleum Products .....	19

## Working for the Environment 21

Environmental Management .....	22
Efforts to Prevent Global Warming .....	25
Environmental Efforts at Refineries and Plants: Part 1 .....	27
Preventing Air Pollution, Preventing Water Pollution Proper Management of Chemicals	
Environmental Efforts at Refineries and Plants: Part 2 .....	29
Reducing Waste, Increasing Recycling/Strict Soil Contamination Measures and Green Purchasing	
Environmental Efforts at JOMO Service Stations .....	30
Environmental Efforts in Products and Services .....	31
R&D into Environmentally Friendly Technologies and Products .....	33

## Together with Society 35

Together with Our Customers .....	36
Together with Our Business Partners .....	39
With the Employees .....	40
Together with the Community .....	43

## Feature 2 As a Corporate Citizen 47

### Nurturing the Next Generation and Protecting the Environment

Third Party Opinions .....	51
Explanation on Terms .....	52



The site report is placed in the homepage  <http://www.j-energy.co.jp/sitereport/>



Our company name, Japan Energy, represents our social mission of providing a stable supply of energy as one of Japan's leading energy companies. It also represents the "energy" that we put into developing new technologies and new businesses.

JOMO, our corporate brand name, is an abbreviation meaning the "Joy of Motoring" and the "Joy of Movement." The sphere part of our corporate mark represents the Earth, with a gradual change of color from blue to green representing our crystal-clear environment of water, plants, and trees. The square part of the corporate mark represents the sky above us, with the gradual change from reddish orange to yellow representing the dawn of a new era. The combination of these two elements symbolizes both a deep concern for the Earth and its environment, and a picture of moving towards a new era.

**Our Mission: The Stable Supply and Effective Use of Energy. Fulfilling our Social Responsibilities to the Earth and to our Stakeholders, We Aim for Sustainable Growth.**



### Japan Energy's Social Mission

Petroleum accounts for the majority of Japan's primary energy sources. This inexpensive, stable energy source has contributed to Japan's economic development. It will continue to play an important role as a source of primary energy in the 21st century due to its economy and accessibility.

At Japan Energy, our aim is to contribute to advancing society and improving people's lifestyles. To this end, we operate our business based on environmental protection and safety, providing a stable and efficient supply of energy and raw materials centered on petroleum products and petrochemical products, and ensuring that energy is used efficiently and in effective new ways.

### Our Roots Lie in our Corporate Mission: "We Create Energy"

In April 1997, we established our Mission, "We Create Energy," along with our "Five Pledges," a guide to put this mission into practice. Our mission represents the direction and stance Japan Energy must take to achieve its aim of helping realize a society that is warm and vibrant. This aim can be achieved by using three kinds of energy in a synergistic effect: activating "Energy in people," using the "energy of the Earth" wisely, and enhancing the "energy of society."

The Five Pledges represent promises that our directors and employees have made to society regarding corporate ethics and social contribution; environment and safety; respect for individuality; a customer-first approach; and profitable growth. These are promises with the society that must guide us in everything we do. Putting our Mission and Business Principles into practice is what our CSR activities are all about.

In January 2005, we boosted our CSR capacities with establishment of the Corporate Social Responsibility Department, which is dedicated to the planning and implementation of all CSR activities based on our Mission.

Japan Energy carries out CSR activities with an emphasis on compliance, environmental protection, customer satisfaction, and social contribution.

### Be a Good Corporate Citizen

At Japan Energy, compliance is a prerequisite for all business activities, with all employees earnestly abiding by laws, social norms, and corporate ethics. By having everyone from our top management to general employees share an understanding of our goals, Mission and Business Principles, and by emphasizing deep and transparent communication with our stakeholders, we aim to realize a sustainable society and grow as a company.

### Carrying Out Business with Concern for the Environment and Safety

Petroleum products constitute a valuable source of energy and petrochemical products are an important source of raw materials. Large-scale consumption of these, however, causes problems like man-made carbon dioxide emissions that impact the Earth's environment. Starting in 2008, countries must meet targets for greenhouse gas emissions under the Kyoto Protocol. Meanwhile, accidents at our sites can negatively impact the local and global environment. We are therefore fully aware that we must at all costs continue to make environmental protection and safety an integral part of our business activities.

In our Mission, we state that we will “use the energy of the Earth wisely.” In our Five Pledges, we state that we shall “Always give top priority to safety and the environment.” As a petroleum company, it is only natural that we take responsibility for preventing problems like global warming and air pollution in the energy processes of our petroleum business, from petroleum exploration, development, production, and transportation, to refining and to marketing, as well as throughout the entire supply chain. That’s why we carry out business with the utmost care for environmental protection and safety: we pursue energy efficiency and reduced environmental impact, and we have systems for safety and crisis management. All of our refineries and plants are certified for ISO 14001, thus ensuring that our organization has built-in systems for continuous environmental improvement.

We also develop technologies that protect the environment: our research and development includes clean energy sources, fuel oils like sulfur-free gasoline and sulfur-free gas oil, environmentally friendly products in the lubricant and petrochemical fields, and plastic chemical recycling. As part of our efforts to prevent global warming, we are obtaining CO<sub>2</sub>-equivalent emissions credits and looking into starting Clean Development Mechanism (CDM) projects. We have also joined the rest of the industry in starting trial sales of bio-gasoline.

Japan Energy is also striving to protect domestic forests, which act as carbon sinks. Working with local governments and non-profit organizations, we are providing funds and employee volunteers for forest protection and tree-planting activities.

## Keeping All Channels of Communication Open with Stakeholders Such as Customers and Employees and Boosting Customer Satisfaction

Japan Energy and JOMO service stations and dealerships work as a team in pursuit of customer satisfaction. Everyone—from service station crew to top management—share a desire to serve and achieve the highest level of customer satisfaction. We are striving to create “Value Style” stations based on the principle of “producing stations that make customers want to come again.” Another way we are satisfying our customers is by training our people to be rich in humanity in order to enhance the quality of our customer service. At the same time, the realization of customer satisfaction is tied to a high assessment of a company’s image and brand, and such a high assessment from society in turn leads to more pride and joy for employees. In other words, customer satisfaction and employee satisfaction are a collaborative effort. We will continue to strive to create a free and open workplace environment in which each

employee’s personality and capabilities are given full rein and respect, and in which women and men from all backgrounds can work stress-free.

## Contributing to Society through Sports, Culture, and Volunteering

Japan Energy is particularly active in its contributions to society through the promotion of sports and cultural activities and assistance to children’s and special needs’ groups. We also support our employees’ volunteer activities in the community. Now in its 38th year, the JOMO Children’s Story Award is our company’s longest running social contribution activity. Every year, we gather children’s stories from around Japan, and the most outstanding entries are awarded and published in the Bouquet of Children’s Stories. Since 1992, our dealers have purchased copies of the Bouquet of Children’s Stories, with proceeds going to the Japan National Council of Social Welfare, which carries on the JOMO Scholarship Grant for children’s welfare. We also promote sports through the JOMO Basketball Clinic and physical activities for special needs people through the click donation program. We will continue to focus on these key areas as well as look into new ways to contribute to society.

## UN Global Compact

Japan Energy takes part in the UN Global Compact and its local network, the Global Compact Japan Network, working with other companies to solve problems and share successes in international problems related to human rights, labor, the environment, and anti-corruption.

## Taking CSR Further

2007 marks the 10th year since we established our Mission and Business Principles. In addition to looking back on what we have done and how well it has taken root, this fiscal year will see us re-familiarize ourselves with our Mission and Business Principles and strive to achieve them by fully understanding and putting into action our CSR activities. As President and CEO, I will lead by example by reaffirming my commitment to CSR.

We hope that this CSR Report 2007 will give you a better understanding of Japan Energy’s CSR activities. We welcome your frank and honest opinions and hope to reflect them in our CSR activities from now on.

August 2007

**Isao Matsushita**

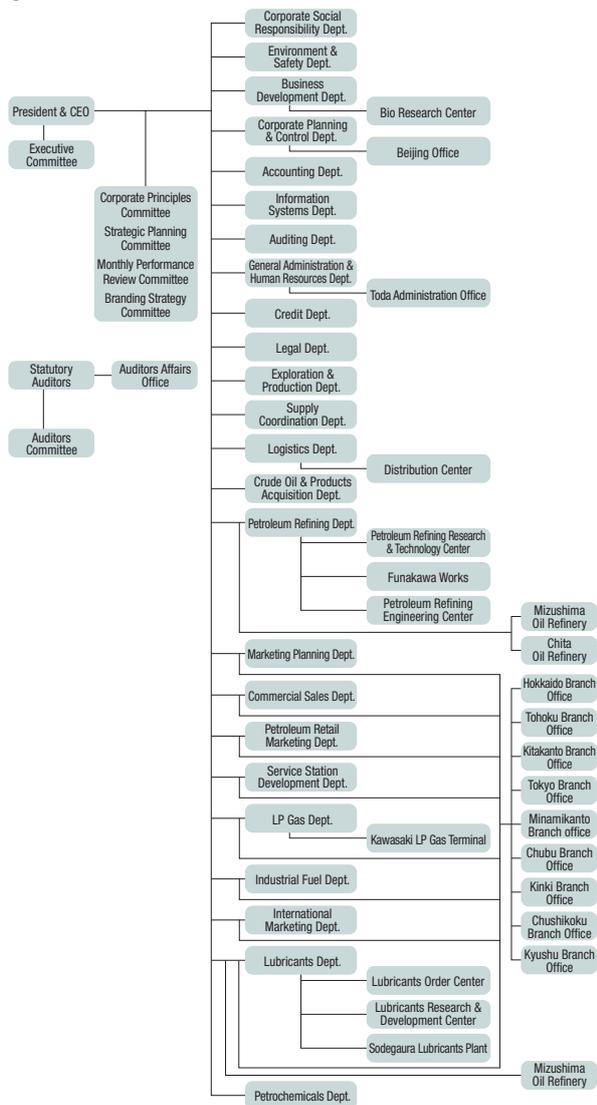
President and Chief Executive Officer,  
Japan Energy Corporation

# Corporate Information

## Corporate Profile

<b>Name</b>	Japan Energy Corporation
<b>Head office</b>	2-10-1 Toranomon, Minato-ku, Tokyo, Japan 105-8407
<b>Founded</b>	December 1905
<b>Established</b>	April 1, 2003
<b>Capital</b>	48 billion yen Wholly owned by Nippon Mining Holdings, Inc.
<b>President</b>	Isao Matsushita
<b>Number of employees</b>	2,476 (As of March 31, 2007)
<b>Main lines of business</b>	Exploration, development and production of petroleum Manufacturing and marketing of gasoline, naphtha, kerosene, gas oil, heavy fuel oil, LP gas and lubricating oils Manufacture and marketing of petrochemical products

## Organization (As of June 28, 2007)



Notes: The Kitakanto Branch, Tokyo Branch and Minamikanto Branch do not oversee the business of the Industrial Fuel Department, International Marketing Department and Lubricants Department.

## Fiscal 2006 Performance

Demand for petroleum products was overall down slightly, with fuel oils sales volume of 28.75 million kiloliters, down 3.9% over the previous year. The price of our products rose due to the continuing high level of crude oil prices. Consolidated sales were 2,755.7 billion yen, up 15.2% over the previous year, and consolidated income before special items decreased 15.5% to 81.9 billion yen, mainly because of the shrinking effect of cost reduction by inventory valuation due to the rise in crude oil price.

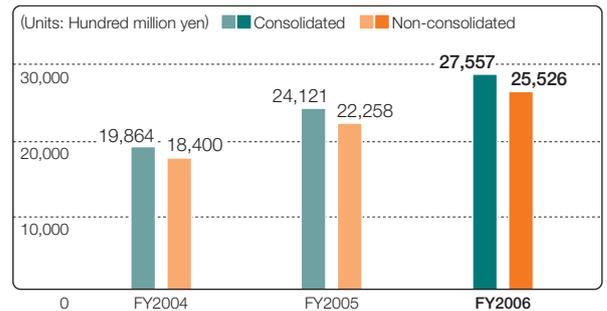
In the refining division, the Mizushima, Chita, and Kashima refineries continue to put safety and environmental protection first while continuing highly efficient operation. At the Mizushima refinery, we have finished the reinforcement of delayed coker unit in April 2007, in order to make the unit bottomless because of the movement towards bottomless (zero heavy fuel oil C) to respond to changes in demand of products.

In our marketing division, everyone from service station crew to top management shares a "mentality of hospitality" as part of our mission to manage our company with a customer satisfaction focus. We are aiming to achieve excellent service and create service stations that are the most competitive in their regions through our Value Style service station initiative in which we create stations that make customers first want to come and try us and then make them want to come back. In October 2006, we newly issued our JOMO Card Light with no annual member charges.

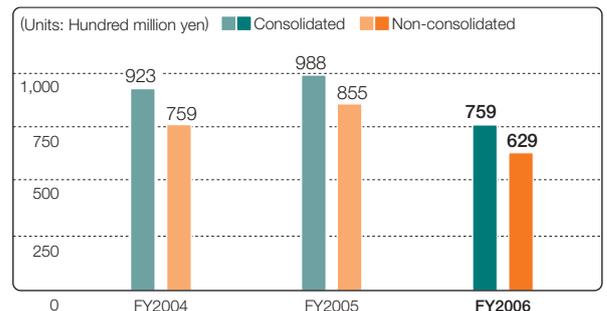
In January 2007, we jointly established Japan Biofuels Supply LLP with other companies in our industry. In April 2007, we began pilot sales of bio-gasoline that contains ethyl tertiary butyl ether (ETBE), a synthesis of bio-ethanol.

In our exploration and production division, jointly with other companies in our industry, we are exploring and developing petroleum and natural gas in the Middle East, China, Southeast Asia, Oceania, and Japan.

### Net Sales



### Operating Income



## Primary Affiliated Companies (As of April 1, 2007)

### Petroleum exploration, development and production

Japan Energy Development Co., Ltd.  
Southern Highlands Petroleum Co., Ltd.  
NMC Pearl River Mouth Oil Development Co., Ltd.  
Abu Dhabi Oil Co., Ltd.  
United Petroleum Development Co., Ltd.

### Crude oil transportation

Nissho Shipping Co., Ltd.

### Refining and manufacturing petroleum products and related businesses

Kashima Oil Co., Ltd.  
Kashima Aromatics Co., Ltd.  
Nikko Liquefied Gas Co., Ltd.  
Petrocokes Ltd.  
Cactus Industry Co., Ltd.  
JOMO Mizushima Techno, Inc.  
Funakawa Kosan Ltd.  
Oga Techno Co., Ltd.  
JOMO Technical Research Center Co., Ltd.  
Sanyo Kiki Kentei Co., Ltd.  
Isewan Sea Berth Co., Ltd.  
Toa Tansan Co., Ltd.  
JS Initiative Ltd.

### Transportation (in Japan)

Nippon Tanker Co., Ltd.

Toshin Yusosen Co., Ltd.  
JLS Corporation  
Chubu Sekiyu Yuso Co., Ltd.  
Kinki Ekitai Yuso Co., Ltd.

### Marketing of petroleum products and LP gas, and related businesses

JOMO-Net Tohoku Co., Ltd.  
JOMO-Net Kita-kanto Co., Ltd.  
JOMO-Net Higashi-Tokyo Co., Ltd.  
JOMO-Net Nishi-Tokyo Co., Ltd.  
JOMO-Net Minami-Kanto Co., Ltd.  
JOMO-Net Tokai Co., Ltd.  
JOMO-Net Kansai Co., Ltd.  
JOMO-Net Sanyo Co., Ltd.  
JOMO-Net San-in Co., Ltd.  
JOMO-Net Kyushu Co., Ltd.  
J-Quest Co., Ltd.  
Asia Shoji Co., Ltd.  
Nissan Sekiyu Hanbai Co., Ltd.  
JOMO Retail Service Co., Ltd.  
Shin-Hokkou Oil Co., Ltd.  
Ryoyu Oil Co., Ltd.  
Asahikawa Sekiyu Co., Ltd.  
JFE Shoji Sekiyu Hanbai Co., Ltd.  
Iwami Kotsu Shoji Co., Ltd.  
Inoue Shoko Co., Ltd.  
Taiyo Koyu Co., Ltd.  
Itochu Petroleum Sales Co., Ltd.

Kyo-Pro Co., Ltd.  
JOMO-Pro Kanto Co., Ltd.  
Gas Net Co., Ltd.  
JOMO Sun-Energy Co., Ltd.  
Toyo Sekiyu Hanbai Co., Ltd.  
JOMO Support System Co., Ltd.  
JOMO Enterprise Co., Ltd.  
JOMO Guardian Co., Ltd.  
JOMO Net Outsourcing Co., Ltd.  
JOMO Educational Information Center Co., Ltd.  
Japan Energy Analytical Research Center Co., Ltd.

### Oil Stockpiling

Fukui Oil Storage Co., Ltd.  
Akita Oil Storage Co., Ltd.  
Kyodo Terminal Co., Ltd.  
Okinawa Terminal Co., Ltd.

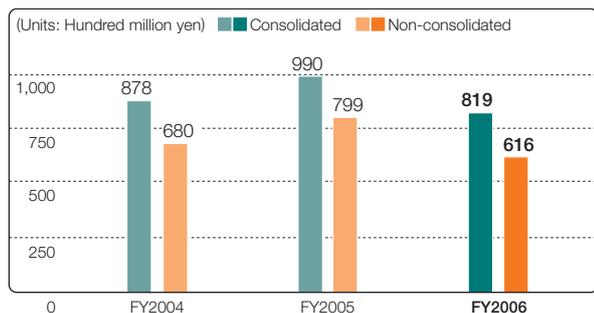
### Other businesses

IS Japan Co., Ltd.  
am/pm JAPAN Co., Ltd.

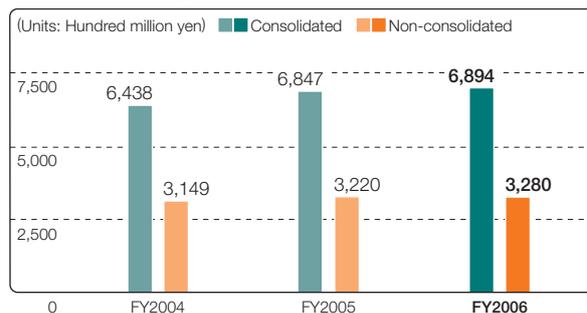
### Overseas businesses

Irvine Scientific Sales Co., Inc.  
Japan Energy (Singapore) Pte. Ltd.  
Japan Energy (Oceania) PTY., LTD.  
Japan Energy (U.K.) Ltd.  
Japan Energy (Shanghai) Trading Co., Ltd.  
Shanxi Japan Energy Lubricants Co., Ltd.

### Income Before Special Items

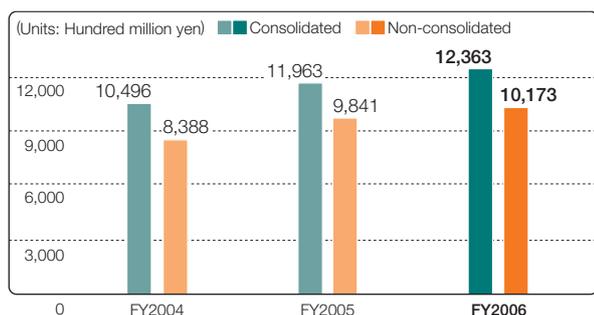


### Interest-Bearing Liabilities

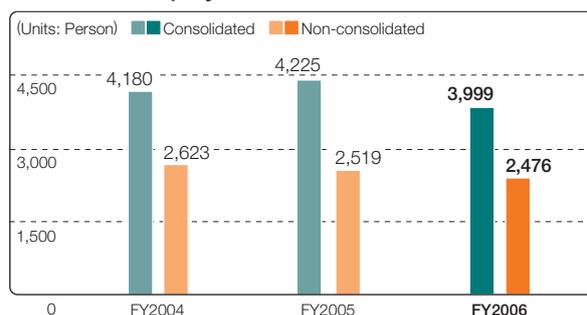


Note: Consolidated interest-bearing liabilities are those of the Nippon Mining Holdings Group.

### Total Assets



### Number of Employees

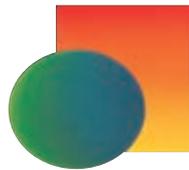


Note: The number of non-consolidated employees includes those dispatched to affiliates.

## Mission and Business Principles

Our Mission, “We Create Energy,” indicates the direction and the goal our company is heading, and sense of values and commitment all of our directors and employees must share. Our Business Principles consist of the Five Pledges, standards of action for implementing our Mission. Central to our CSR activities is every director and employee to carry out their day-to-day work with a focus on the Mission and Business Principles.

Japan Energy’s Mission and Business Principles (Established in April 1997)



Our Mission

# **WE CREATE ENERGY**

**For a more cohesive and dynamic society.**

We activate the natural **Energy in People**, placing a high value on individual imagination and creativity.

We use the **Energy of the Earth** wisely, fully aware that the global environment forms the basis for mankind’s present and future existence.

We enhance the **Energy of Society** by continually improving corporate performance and credibility, and discharging responsibility as a corporate citizen to discover new values and additional areas of growth.

Our Business Principles

# **FIVE PLEDGES**

**To achieve our mission, we will:**

- Communicate openly about our policies, programs and performance, and always act as a good corporate citizen.
- Always give top priority to safety and the environment.
- Foster a work environment based on teamwork and a can-do spirit to offer innovative technologies, products and services.
- Accurately identify and fully satisfy the ever-evolving needs of our customers.
- Strive to achieve corporate growth through sustainable earnings in close cooperation with our group of companies.

# Corporate Governance

By putting its Mission into practice, Japan Energy is fulfilling its role as a good corporate citizen. As an important part of this, we are ensuring effectiveness and transparency in our management.

## Creating Systems that Strengthen Internal Control

In line with the new Japanese Corporate Law enacted in May 2006, we set out a general framework for a system that would allow us to comply with the stipulations of the law. The basic policy of the frame work is to establish our internal control system. In June 2006, we abolished the Board of Directors, Board of Auditors and Board of Executive Officers, and in their place established the Executive Committee and the Auditors Committee. This new system allowed us to speed up our decision-making and simplify our executive systems. In June 2007, we increased the number of full-time auditors, thus strengthening the auditors system.

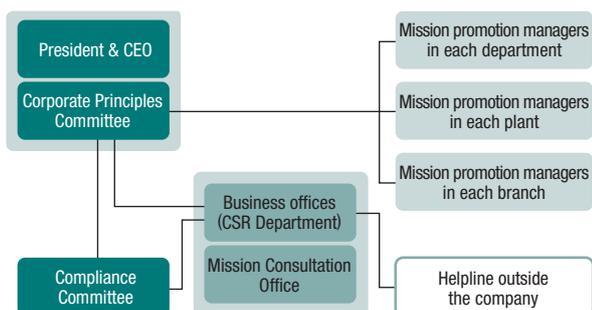
Based on the above-mentioned basic policies, directors and employees abide by relevant laws, articles of incorporation, our Mission, the Basic Compliance Rules and other in-house rules and notices. To make all this effective, Japan Energy has systems as mentioned below.

Ever since establishment of our Mission in 1997, the Corporate Principles Committee (originally the Corporate Principles Headquarters Meeting), chaired by our company president (originally the Chief Officer of the Headquarters), has made it a rule to meet once a month. Made up of officers in charge or in supervision of each department, this committee discusses company-wide issues related to our Mission and CSR.

The Compliance Committee was established in July 2003 as a subsidiary body of the Corporate Principles Committee. This committee ensures thorough compliance by setting policy on company-wide education and awareness activities and examining the progress that each department and subsidiary is making in compliance. Both the Corporate Principles Committee and the Compliance Committee are administrate by the Corporate Social Responsibility Department.

In addition to the Corporate Principles Committee, three other advisory bodies have been established: the Strategic Planning Committee, the Monthly Performance Review Committee and the Branding Strategy Committee. These Committees allow the company's highest level of management to examine critical issues with a specialized focus, thus allowing us to improve the efficiency and transparency of our management.

### System for Promoting Our Mission and Compliance



## Group Management System

Japan Energy and Nippon Mining Holdings, Inc. work together on a joint committee, the Nippon Mining Holdings Group Management Conference, to create medium- and long-term management plans that both sides can agree to. The two companies also have a basic contract related to management of the group that clarifies the standards on which Nippon Mining Holdings manages and control Japan Energy. These standards separate group management and execution of businesses, effectively securing group business control functions and management transparency.

In April 2006, the Internal Control Promotion Department was established in Nippon Mining Holdings, Inc. to help the Nippon Mining Holdings Group prepare its operations for smooth and systematic compliance with the new laws and revisions of current laws; for example, revisions to the Corporate Law and the Japanese version of the SOX Law (Financial Instruments and Exchange Law; scheduled to go into effect in 2008). As well, the Group Internal Control Committee was established to allow Nippon Mining Holdings, Inc. and the core business companies, including Japan Energy, to cross-organizationally discuss and examine policy on things like system improvements to group-wide internal controls, and to carry out the related planning, documentation and evaluation.

Japan Energy and its subsidiaries share duties on the Japan Energy Group Management Conference whose aim is to create unified medium- and long-term management plans. Another goal of the committee is to respect the autonomy of affiliates based on the Rules for Control and Operations of Affiliates while at the same time improving the overall strength of the group and thus helping the petroleum business segment grow and operate more efficiently.

## Participation in the United Nations Global Compact

Japan Energy has since July 2002 supported the United Nations Global Compact (below referred to as GC) and its 10 principles in the four areas of human rights, labor, the environment and anti-corruption.

When we established our Basic Compliance Rules in May 2004, we codified our commitment to the prevention of child labor and forced labor; prohibition of unfair discrimination; environmental protection; and clean relations with politicians, government and other public offices. Adherence to these rules by employees is ensured by regular in-house training activities.

We also offer employees opportunities to raise their awareness of global issues; for example, through activities to raise money for NGOs that conduct education-support for children in developing countries and through the sponsoring of joint events with concerned organizations that bring employees close to important issues facing the world today.



Please refer to the GC home page for details of the GC 10 principles.

<http://www.unic.or.jp/globalcomp/>

## Compliance/Risk Management

For Japan Energy, compliance is the major prerequisite in all business activities. Our basic policies, concrete standards and systems of implementation are all set in rules and we are striving to promote compliance.

### Fundamental Compliance Policy

Established in May 2004, our Basic Compliance Rules state that, led by our top management, all employees shall earnestly abide by laws, social norms and corporate ethics based on our Mission. To this end, we have made it a basic policy to continuously upgrade our organizational culture and create a system that prevents misconduct and clarifies responsibilities.

### Concrete Standards of Compliance

Based on our Fundamental Compliance Policy, we set the following 22 criteria as concrete standards that directors and employees must adhere to in all that they do. The Basic Compliance Rules state that directors and employees must adhere to these to other relevant laws and regulations.

Starting in FY2006, we expanded the criteria to all group companies and in March 2007 checked the state of compliance with these.

#### Concrete Standards of Compliance (22 Criteria)

1. Adherence to the Antimonopoly Act
2. Prohibition of insider trading
3. Environmental protection
4. Safety management
5. Adherence to the Unfair Competition Prevention Law
6. Fair relations with politicians, public agencies and public officials
7. Consumer protection
8. Disclosure of information and accountability
9. Dealing with anti-social forces
10. Appropriate accounting
11. Fair reporting of working hours
12. Prohibition of receipt of gifts
13. Prohibition of unfair discrimination
14. Prevention of sexual harassment
15. Protection of personal information
16. Prevention of child labor and forced labor
17. Prohibition of conflicts of interest
18. Prohibition of private usage of company properties
19. Assurance of security of company information
20. Appropriate management of exports
21. Prohibition of trading for speculative purposes
22. Rigorous crisis management

### System of Implementation for Compliance

Japan Energy's activities are run by the Compliance Committee, which was established as a subsidiary body to the Corporate Principles Committee in July 2003. The Compliance Committee establishes policy on compliance education and awareness activities for the entire company. Every six months, the committee examines and evaluates the progress that company divisions are making on key compliance-related efforts.

### Mission Consultation Office for Internal Reporting

Part of efforts to promote our Mission, this office responds to questions, opinions and doubts expressed by employees, and the office also hears complaints on in-house misconduct and other issues based on our Fundamental Compliance Rules. In FY2006, there were three cases of consultation related to issues like coworker relations.

Based on the Whistleblowers Act, which was formulated in June 2004, Japan Energy strictly forbids any retaliation against whistleblowers reporting things like misconduct. These protective measures are written into the Fundamental Compliance Rules.

To further improve this reporting system, in April 2006, we established our Reporting System Operation Rules, which stipulate basic policy, procedures and items of note for operation of the reporting systems. We also added helpline outside the company, as a supplement to the Mission Consultation Office for Internal Reporting, which had been responsible for taking reports on misconduct inside the company. This new helpline is operated by a law office to take reports from directors and employees (including dispatched employees).

### Compliance Education

Japan Energy has always made compliance an integral part of education in the company Mission and CSR. Our implementation policy is to take every opportunity to honestly and frankly educate directors and employees so that a spirit of compliance takes firm root in the company.

In FY2006, we implemented CSR and compliance education in the training programs for new employees and newly appointed managers. As well, we held a training program by an outside expert aimed at Mission Promotion Managers from all department and site of Japan Energy.

### Risk Management

Risk management is divided into risk assessment (preventative), risk control (dealing with problems) and risk communication (public relations). Japan Energy places particular emphasis on risk assessment as a way to prevent problems from ever occurring. We use the HAZOP\* method at our refineries, which are the sites that present the greatest risk.

\*HAZOP: Hazard and Operability Study. A method for analyzing the safety of processes.

## Information Security Management

Japan Energy distributes the Information Security Guidebook to all directors and employees. This guidebook stipulates our Basic Information Security Rules and Information Security Standards, and is also a compilation of the rules that must be adhered to in all daily work.

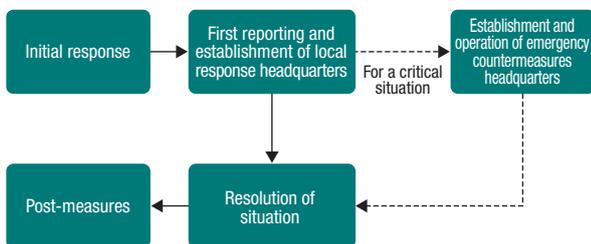
Once a year, the Information Security Committee conducts information security audits. In the FY2006 audits, committee members checked each division to see how well they were handling classified information and taking measures for computers and other office equipment to protect such important information. Measures were taken to fix any problems that were discovered.

## Preventing Disasters and Taking Emergency Measures

Japan Energy's business involves the handling of large amounts of dangerous substances and high-pressure gases. That's why we take every opportunity for thoroughness and make it a top priority to prevent disasters like fires, explosions and work-related accidents. We do this by thoroughly maintaining and ensuring the proper operation of facilities, and by conducting regular training for employees including TPM (Total Productive Maintenance). We also have our Risk Management Rules, which describe systems for dealing with natural disasters like typhoons and earthquakes, as well as terrorist attacks.

Particularly, concerning on accidents at refineries, plants, delivery terminals, during transportation by tank trucks or at filling or service stations, we established the Disaster Emergency System Guidelines, which detail the chain of command for communications and for rescue and repair operations in such cases, thus ensuring that employees properly and promptly carry out disaster measures. We also have regular disaster drills and communication drills to ensure that the entire system is functioning as it should.

### Occurrence of Emergency Situation



## Business Continuity Plan (BCP) in Case of Large-Scale Disaster

In April 2007, Japan Energy established its Business Continuity Plan (BCP\*), which stipulates basic policy for keeping our business going even if there is a large-scale disaster.

The Business Continuity Plan outlines measures for avoiding or minimizing bodily harm to our stakeholders and to their property,

as well as continuing necessary business areas or at least ensuring their early return. The following three basic policies cover a large-scale disaster.

- (1) Make the safety of employees and other stakeholders a top priority, and ensure recovery from disaster and the prevention of a reoccurrence of the disaster.
- (2) Do everything possible to continue supplying products to customers and business partners as needed.
- (3) In line with our social responsibility as a petroleum company, contribute to helping local communities recover from disasters.

As part of our efforts to coexist with and contribute to local communities, in the event of a large-scale disaster, we strive to supply petroleum products and we do all we can to support people affected and help the stricken regions recover as soon as possible. As part of this, by March 2009, we plan to have 100 JOMO service stations equipped with private power generators so they can continue supplying fuel in the event of a power outage.

\*BCP: Business Continuity Plan

## Asbestos: Survey and Measures

We surveyed whether asbestos had been used in our refineries, plants, delivery terminals, R&D Center and JOMO service stations. Any points that were judged to be at risk of dispersing asbestos into the air were either removed or given protective covering by March 2006. We continue to carry out detailed surveys of all sites for the presence of asbestos.

We are also removing asbestos-based insulation covering and gaskets and other materials on machinery and pipes in our refineries and other facilities, and installing replacements that contain no asbestos.

We also carried out health check-ups of all current and former employees who had worked at the affected sites. As a result of these check-ups, it was determined that one employee suffered from an asbestos-related illness. We reported this to the labor disaster authorities as required.

### Gasoline Leak from an Underground Tank at a JOMO-Affiliated Filling Station

In April 2007, it was discovered that regular gasoline leaked from one of the underground tanks at the JOMO-affiliated JOMO201 Fukuoka Inter-Station.

For some reason, on April 1, 2007, the tank in question developed a hole, and until April 5 about nine liters of regular gasoline leaked out. We reported this to the proper government authorities, removed the tank, collected the leaked oil, and began replacing the polluted soil with completion scheduled for early August.

# Responsibilities and Actions in the Supply Chain

At Japan Energy, we interact with the Earth and people through the energy that we provide. In order to deliver a stable supply of the energy that is so vital to people's lives, Japan Energy has a consistent supply chain that covers everything from exploration and development and production of petroleum to marine transportation, refining and stockpiling and distribution, and finally to provision of various services via JOMO service stations. A common theme throughout this entire supply chain is concern for the environment and safety. Fully aware of its social responsibility as an energy company, Japan Energy aims to contribute to a society where people can live in peace of mind.

## Exploration, development and production of petroleum



## Crude oil transportation



## Refining and stockpiling at refineries



## Manufacture and stockpiling of LP gas



## Manufacture of lubricating oils



## Manufacture of petrochemical products



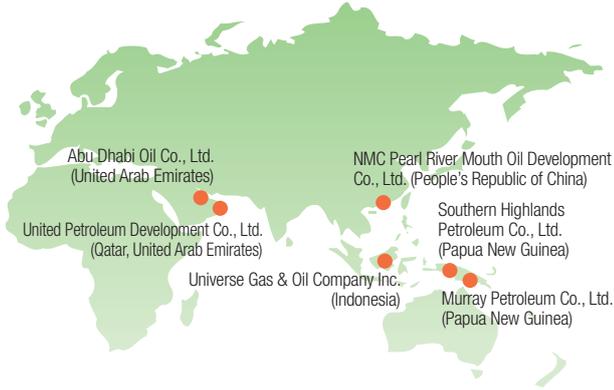
### CSR To-Do List

- Secure energy and provide it on a consistent basis
- Produce, operate and transport energy safely
- Reduce environmental burden in production, operation and transportation
- Grow in harmony with oil producing countries

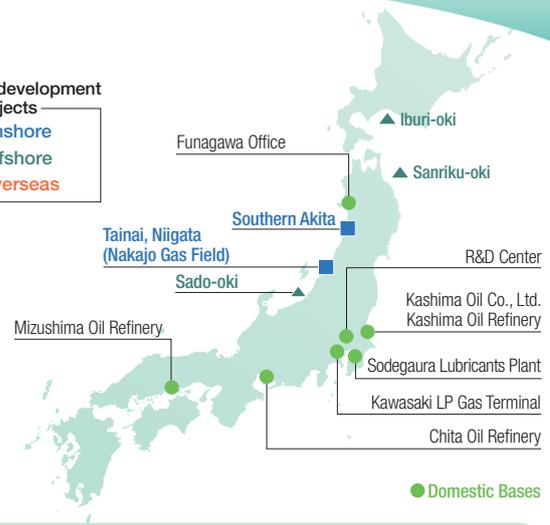
### CSR To-Do List

- Ensure safe, disaster-free production
- Minimize environmental burden during production
- Maintain and improve the quality of petroleum products
- Provide petroleum products on a consistent basis
- Conduct R&D in environmental technologies and products
- Live in harmony with local communities

## Japan Energy Group Bases



## Petroleum development projects



## Transportation in Japan (Coastal tankers)



## Delivery Terminals, LP Gas Secondary Terminals



## Domestic transport (Tank trucks)



## Marketing of petroleum products



## Marketing of LP gas

- Propane
- Butane
- Autogas

## Marketing of lubricating oils

- Lubricating oils for automobiles
- Industrial lubricating oils
- Refrigeration lubricants
- Others

## Marketing of petrochemical products

- Paraxylene
- Benzene
- Normal paraffin
- NS clean
- Heavy aromatic solvents
- Others

## CSR To-Do List

- Ensure safe, disaster-free transportation
- Minimize environmental burden during production
- Provide petroleum products on a consistent basis

## CSR To-Do List

- Offer products and services that are environmentally friendly
- Ensure safe, disaster-free JOMO service stations
- Minimize environmental burden at JOMO service stations
- Provide comfortable environments and services
- Pursue excellence in customer service

# Exploration, Development, and Production of Petroleum Resources / Crude Oil Transportation

The Japan Energy Group has been involved in petroleum exploration and development projects in Japan and overseas. We also operate the large tankers for crude transportation from the Middle East to Japan. The top priorities in these businesses are always Safety and Environmental Protection, however, the energy conservation utilizing the advanced technology is also the important mission of the company.

## CSR To-Do List

- Offer a stable supply of energy
- Produce, operate and transport energy safely
- Reduce environmental burden in production, operation and transportation
- Grow in harmony with the oil producing countries

## The Mission of an Energy Development Company: Grow in Harmony with Oil Producing Countries and Develop Earth-Friendly Energy

### Efforts on Reducing Environmental Load in Offshore Oil Field

NMC Pearl River Mouth Oil Development Co., Ltd., in which Japan Energy Development Co., Ltd. (JED) has a stake, works through its local operator, JHN Oil Operating Company, to operate offshore oil fields in the South China Sea. This joint China-Japan project was commenced in 1985 and has been producing petroleum in 1993.

JHN, in cooperation with its partner in China, CNOOC Limited\*, strives to reduce energy consumption. Under the 11th five-year plan formulated at the end of FY2005 by the government of the Peoples Republic of China, reduction of energy consumption is a major goal. JHN set a target of reducing energy consumption 12.35% against FY2005 by 2010. The first year assignment was achieved in FY2006. The company continues to work towards achieving the goals of the country's five-year plan.



Lufeng 13-1 oil field

**Proportion of interests**  
 CNOOC: 25%  
 NMC Pearl River Mouth Oil Development Co., Ltd.: 15%  
 Two Japanese companies: 30% each

**Total production volume in the Lufeng 13-1 oil field**  
 FY2005: 3,440,000 barrels

## Our Expectations

### As a Responsible International Citizen, I Hope to Contribute to Mankind and Society through Japan-China Cooperation

Mr. Ying Ye Rong, JMC Chinese Side Chief Representative of JHN from CNOOC Ltd.

CNOOC has been working on the joint China-Japan project in Lufeng 13-1 with a realization of the responsibility to society. We are currently working in the areas of safety management, energy conservation, and environmental protection, and are particularly interested in advanced Japanese technologies for energy conservation. The management know-how of Japanese companies is extremely helpful in safety management; the 5S activities (Sort, Set in order, Shine, Standardize, and Sustain) have been praised by CNOOC and are gradually being applied in other operating companies in the oil fields. We at CNOOC have been working with Japan Energy on this joint project for almost a quarter of a century, and we will continue to deepen our relations as we strive to contribute to mankind and society as responsible international citizens.



Crude oil production generates associated water, which contains oily components and solid particles. Putting this back into the ocean would be polluting, so countries are currently working on setting strict emission standards.

JHN abides by the strict emission standards of China's State Oceanic Administration and treats associated water by removing oily components. It is also incorporating new technology and working on improving its crude oil production process in order to the total amount of emissions.

The company has also set a target of reducing total emissions by 28% over the next five years.

\* **CNOOC Limited:** A subsidiary of China National Offshore Oil Corporation (CNOOC), CNOOC Limited explores and develops offshore oil fields. It possesses interests on the China side of the joint Japan-China project, and also plays the role of overseer as a representative of China's national oil interests.

### Maintaining Good Relations with Oil Producing Countries through Social Contribution

JHN works with CNOOC to contribute to society in the form of support for the needy, education, and disaster relief.

As part of educational support, in FY2006 JHN contributed to a charity project to expand an elementary school in the needy region of Kaili City, Guizhou Province. It also donated to a charity for disaster relief on the outskirts of Zhanjiang City in the south of Guangdong Province, which was directly hit by a typhoon. Through such work, the company strives to develop good relations with local communities.



NICHIOH, a large double-hull tanker

### Safe, Environmentally Friendly Transportation by Large Tankers

When transporting crude oil in large tankers, we strive for safety and environmental protection. Highly efficient navigation technology helps reduce CO<sub>2</sub> emissions, and double-hull tankers ensure that there are no oil spills even if the outer hull is damaged. A Vessel Traffic Management System uses maritime communication satellites to ensure that both crew and ship are protected.

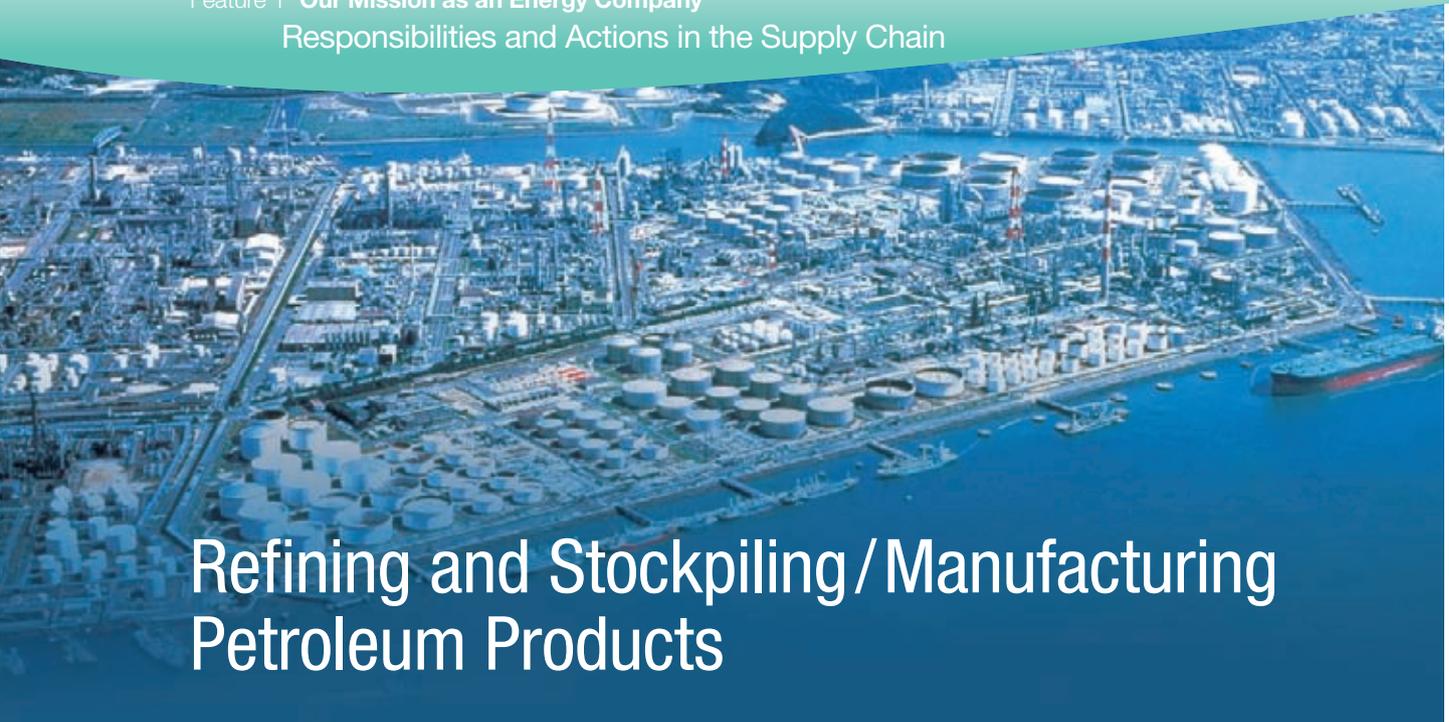
## JOMO Efforts

### Ensuring a Stable Supply of Energy through Safe, Environmentally Friendly Business

Yuji Shiozawa, General Manager, Development and Production Dept., Japan Energy Development Co., Ltd. (JED)

The Development and Production Department in JED is responsible for the drilling of exploration wells, the planning and implementation of field development projects, and subsequently management of production operations. In recent years, the concept of health, safety and environment (HSE) has become increasingly important in E&P projects worldwide. JED's operating affiliates are implementing a systematic HSE management system in order to maintain stable and consistent operations and to meet the regional and global HSE requirements.





# Refining and Stockpiling / Manufacturing Petroleum Products

Crude oil from oil producing countries is transported to our refineries, where it is refined into gasoline and other fuels. Here we also produce petrochemical products, lubricating oils and LP gas. Another important role of refineries is to stockpile crude oil and petroleum products and ensure their stable supply. At the Japan Energy Group's three domestic refineries, all employees take part in TPM (total productive maintenance) in which the top priorities are safety, disaster prevention and environmental protection.

## CSR To-Do List

- Ensure safety and disaster prevention in production
- Reduce environmental burden in production
- Ensure and improve quality of petroleum products
- Ensure a consistent supply of petroleum products
- Conduct R&D into environmental technologies and products
- Live in harmony with local communities

## Promoting TPM Activities in Pursuit of “Reform People and Equipment”

### 10 Years of Grassroots Activities Steadily Reduce Accidents and Disasters

Japan Energy's Mizushima Oil Refinery embarked upon its TPM activities in 1997. At that time, there was increasing competition spurred by relaxations of restrictions in the industry, and the price gap between heavy crude oil and light crude oil had decreased dramatically; this cancelled out the benefits, and therefore the profits, that the Mizushima Oil Refinery had previously enjoyed thanks to its strength of processing heavy crude oil. As well, there were a series of technical problems. It was in April 1997 that the refinery started its TPM activities aimed at ensuring safety, raising profitability and training personnel.

Put simply, the goal of TPM is to reform people and equipment. To this end, base heads lead overlapping small group activities at all employee levels and with everyone's participation, with the aim of creating an organization focused on constant improvement and employee education, an organization that eliminates everything, with no exceptions, causing problems or wasted production. In the 10 years since our TPM activities began, people have come

to think differently, and now there is no barrier between manufacturing and maintenance. There has also been a dramatic decrease in problems thanks to thorough analysis of equipment breakdown. Since the introduction of TPM, such targets that refining costs and manpower to be cut in half have been achieved. The refinery has also expanded use of the key performance indicators (KPI) method and is more active in exchanges with the local community and other companies in the industry.

TPM activity achievements in FY2006 include no explosions,



Inspection during a regular maintenance check

## Our Expectations

### Passing on TPM to the Next Generation

Phd. In Engineering

**Hayatoshi Sayama**, Representative of Process Management Institute,  
professor emeritus at Okayama University

The Mizushima industrial complex experienced numerous accidents until about 1985. The cause of most of these accidents was equipment malfunction. What was needed to ensure safety of equipment was TPM. But a major change in thinking was necessary to start TPM, so managers had to first take the initiative and repair, clean and maintain equipment in order for TPM to take root from the ground up. In future, the Mizushima Oil Refinery must educate new employees about this tradition of TPM and instill in them a spirit of TPM.



fires, leakages or other accidents, and no labor accidents among employees at the Mizushima Oil Refinery.

There have also been successes in reducing environmental burden from business, as well as community contributions in the form of volunteer activities to protect forest.

Future aims are for zero labor accidents at affiliates and contractors, improvement of disaster prevention systems and crisis management, and the building of security control

system. These efforts, rooted in safe and consistent operations, will help us become one of the most profitable refineries in Japan and the rest of Asia.



Measuring environmental levels of benzene



Sulfur-free gasoline production units

### Japan Energy Receives 2006 Japan Petroleum Institute Award

Japan Energy and Sud-Chemie Catalysts Japan, Inc. were joint recipients of the Japan Petroleum Institute Award for the development of gas-phase chlorine removal technology using zinc-oxide-based absorbents in the catalytic reforming process.

This technology gives long-term, consistent removal of chlorine-based compounds, which corrode the catalytic reforming devices that are key to manufacturing gasoline base products and aromatic products like xylene and benzene.



Plaque for the Japan Petroleum Institute Award

## JOMO Efforts

### Safety and Improvement is in Our Genes: Pass these on to the Next Generation

**Yutaka Yamamoto**, Head of Educational Center and TPM Promotion Division,  
Mizushima Oil Refinery

In carrying out our TPM activities, we stress the passing on of our traditions of sensitivity to safety and awareness of improvement. We must foster leaders who can conduct TPM activities in coordination with other refineries. At the same time, because employee satisfaction leads to customer satisfaction, we hope to use TPM activities to build an environment in which Japan Energy employees can work with pride.





## Domestic Transportation/Delivery Terminals

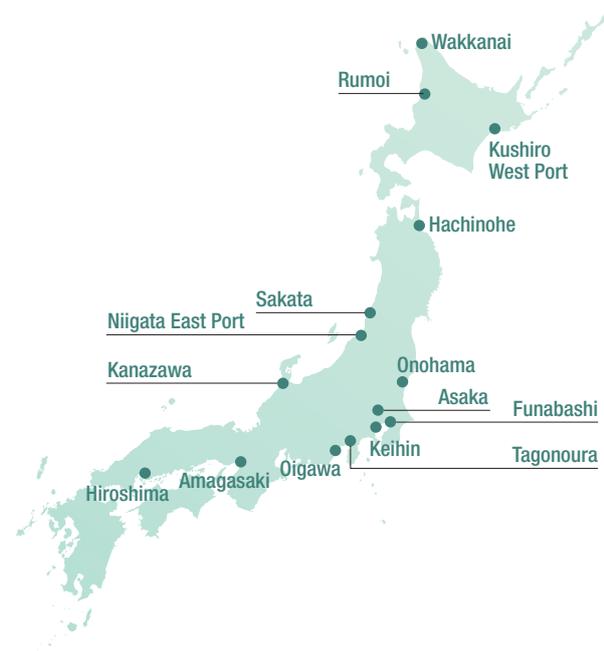
Safely transporting petroleum products, which are dangerous substances, from refineries to delivery terminals and JOMO service stations is a matter of great responsibility. Transportation is done on water by coastal tankers, and on land by tank trucks and railway tanker cars. The delivery terminals have the role of relay stations, storing the petroleum products coming from refineries before shipping them off to JOMO service stations. Emphasis is not only on ensuring safety but also on minimizing environmental burden through efficiency of transportation.

### CSR To-Do List

- Ensure safe, disaster-free transportation
- Minimize environmental burden during transportation
- Provide petroleum products on a consistent basis

## As Relay Stations, We Stress Safety and Environmental Protection in Providing JOMO Service Stations with Petroleum Products

### Delivery Terminals in Japan



### Thorough Daily Equipment Inspections and Safety Monitoring

The Keihin Delivery Terminal provides the approximately 400 JOMO service stations in the Kanto region with petroleum products like gasoline, gas oil, kerosene and grease. It has 38,600 kℓ tank capacity (11 tanks), and two piers capable of handling 5,000-kℓ and 2,000-kℓ class tankers. This is Japan Energy's largest deliver terminal in terms of shipment volume, with 1.18 million kℓ shipped in FY2006.

Every day, the Keihin Delivery Terminal carries out safety control, inventory control, facilities control and delivery control. The terminal is particularly diligent in measures to ensure that the risks from dangerous substances and accidents are kept to the absolute minimum. Activities to this end include improvement of loading facilities for storage tanks and tank trucks, safety monitoring by dedicated staff during cargo handling, static



Inspector carries out a safety check

## Our Expectations

### Provide Petroleum Products with Care and Safety

**Ms. Miyuki Chiba**, Driver, Head Sales Office, Maruwn Transport Keihin Co., Ltd.

I love driving tank trucks and have been doing so since I was 20. My delivery area covers Tokyo, Kanagawa and Saitama. I am particularly concerned with safety when working and inside delivery terminals and delivering. A while ago, I received an email from a customer complimenting me on how I delivered to JOMO service stations in a careful, pleasant manner, and received a commendation from Japan Energy as a result. I will continue to take the utmost care in my work and hope that Japan Energy will continue to ensure safety at delivery terminals so that I can deliver products with safety and precision.



electricity prevention measures for facilities at risk of ignition, regular disaster prevention drills and monthly safety meetings with managers of transportation companies.



Filling a tank truck with safety belt

For loading facilities for tank trucks, there is a hatch management system for computerized reservation of deliveries and hatch allocation. This allows us to accurately load the right petroleum product, be it gasoline or kerosene, onto the proper tank trucks.

Environmental measures include double-layer roofs for storage tanks that prevent hydrocarbon vapor\* from entering the atmosphere.

\* **Hydrocarbon vapor:** If emitted into the atmosphere, this causes global warming and photochemical oxidant (petrochemical smog).



Storage tank and pipeline at the Keihin Delivery Terminal

## Maximum Safety and Minimum Environmental Burden for Transportation in Japan

### The Safest, Most Efficient Transportation Methods

Every year, we have been gradually reducing the amount of fuel used for transportation: in addition to choosing the safest and most efficient transportation method depending on the

destination and distance, we are using increasingly larger tank trucks and coastal tankers, and improving transportation efficiency through measures like night delivery. We are also taking safety measures that include training crew and drivers and installing devices that automatically prevent oil mixing on tank trucks.

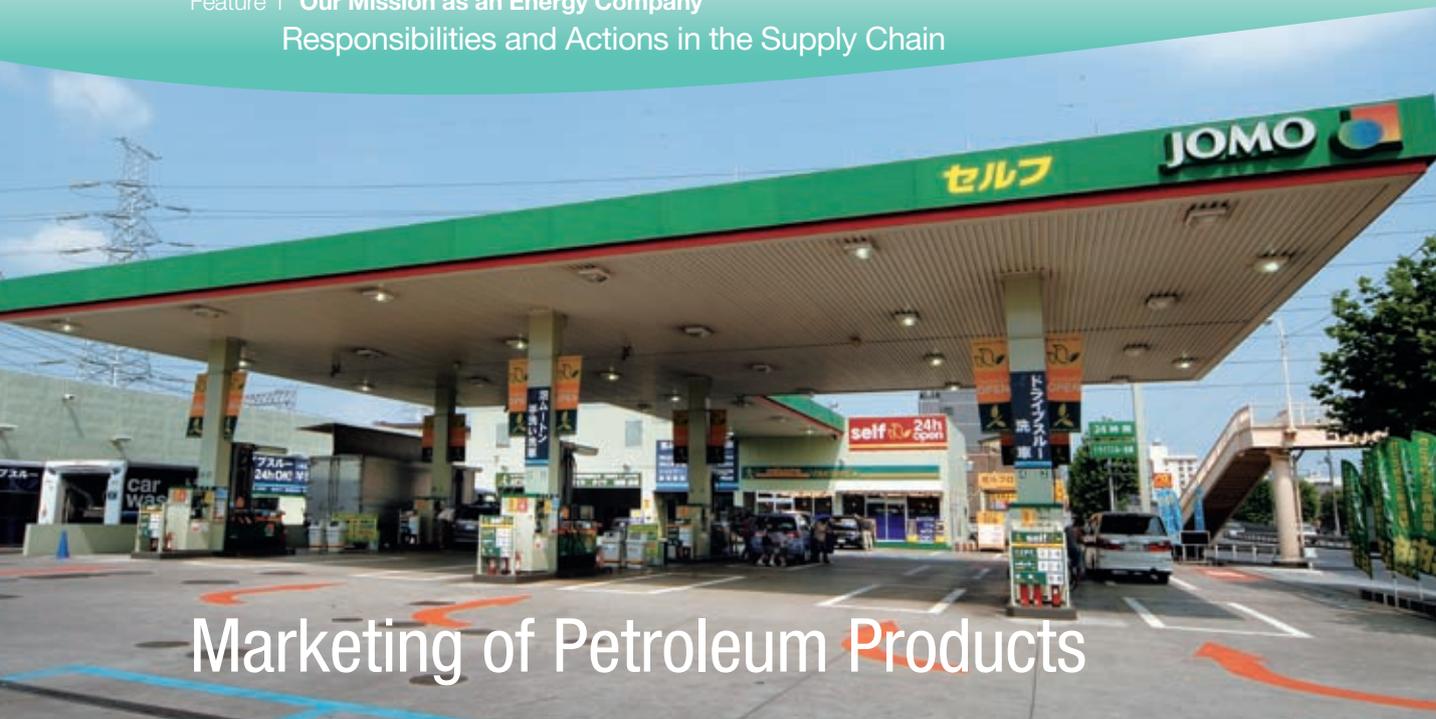
## JOMO Efforts

### Our Aim: Strict Equipment Management and Absolute Safety

**Toshio Matoba**, Manager, Logistics Department, Keihin Delivery Terminal

Safety and environmental efforts are not simply limited to the delivery terminal: they must extend as far as delivery to JOMO service stations. Our delivery terminal has contracts with three transport companies (a total of 60 tank trucks) with whom we work to provide drivers with training courses on safety and environmental actions they can take during delivery, such as turning off truck engines when the vehicle is not moving. Priority is placed on strict management of equipment at the delivery terminal, with staff conducting daily inspection rounds of the facilities. I believe we must continue to manage our equipment and educate workers so that we can fulfill our responsibility as a delivery terminal.





## Marketing of Petroleum Products

JOMO service stations provide customers with petroleum products like gasoline and engine oil in a safe manner. Stations have high safety standards for dealing with disasters or earthquakes, and they conduct meticulous safety checks regularly. They also have thorough environmental protection measures for preventing gasoline vapors from escaping into the atmosphere, preventing soil pollution from leaks, and recycling waste material. And now, we are promoting Value Style stations where we can help people's life at the community and provide visitors with excellent hospitality and a relaxing atmosphere.

### CSR To-Do List

- Offer products and services that are environmentally friendly
- Ensure safe, disaster-free JOMO service stations
- Minimize environmental burden at JOMO service stations
- Provide comfortable environments and services
- Pursue excellence in customer service

## Operating Safe Service Stations and Minimizing Environmental Burden

### Safe Operation and a Lifeline for the Community in the Event of a Disaster

JOMO service stations are designed to comply with the safety standards set under fire defense laws and regulations, and all facilities and equipment have built-in safety measures.

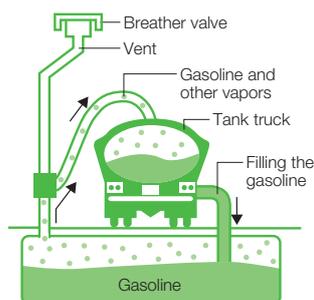
Apart from the service station's entrance, there is a fireproof wall around the site and the building itself is fire resistant thanks to the use of non-flammable construction materials. Underground tanks for storing petroleum products have double-layer construction to prevent leaks, and they are extremely earthquake resistant. We are also building more

### Major Environmental and Safety Measures at JOMO Service Stations

#### •How hydrocarbon vapor recovery system works



Hydrocarbon vapor recovery

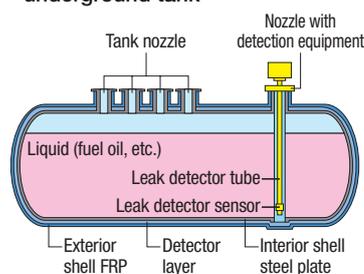


#### •Foam extinguishing system



JOMO self-service stations that handle gasoline and gas oil have foam extinguishing systems. A chemical agent is mixed with the water for extinguishing. This solution is sprayed onto the burning surface, where the fire is put out by the smothering effect of the foam and the cooling effect of the water. Note: Within the red circle  is the nozzle for the foam extinguishing solution. (These must be installed at self-service stations).

#### •Structure of double-walled underground tank



## Our Expectations

### More Chances to Talk will Lead to Better Service

**Mr. Shun Tomura**, Manager, JOMO Urawa-Omagi Station, JOMO-Net Nishi-Tokyo Co., Ltd.

When we first introduced the Value Style concept, I was a little confused about the change in the store and facilities. But as a result of things like customer surveys provided by Japan Energy and the mystery shopper program\*, staff are more aware, they interact with customers much more professionally, and they offer customers service that is truly satisfying. In future, I would like to see Japan Energy provide things like information on other service stations and come up with proposals that reflect customer opinions.

\* **Mystery shopper program:** Twice a year, an ordinary customer enters a JOMO service station anonymously without advance notice and checks and evaluates things like customer treatment and facilities.



service stations that can act as community lifelines in the event of disasters, equipping them with private power generators to aid emergency vehicles like fire trucks and ambulances.



Private power generator

Japan Energy is working with companies both inside and outside the group to create

measures for preventing leaks of petroleum products into the soil. As measures for preventing air pollution, we have equipment for collecting hydrocarbon vapor, and we also recycle waste including used tires, oil and batteries. Single-walled tanks that have been underground for 30 years begin to deteriorate, so we are gradually implementing planned safety measures; these include upgrading tanks to double-walled tanks and equipping the interior of the tanks with fiberglass reinforced plastic (FRP) lining starting in FY2007.

## Boost Sales at Dealerships. Raise Customer Satisfaction Even Further

### Supporting Improved Service at JOMO Service Stations

Because it goes without saying that JOMO service stations should offer service that is known and trusted by the local community, we are continually striving to offer excellent customer service. These efforts include customer satisfaction surveys focusing on treatment of customers and cleanliness, staff suggestion boxes and employee training aimed at offering customers the ultimate in service. It's all part of our efforts to build Value Style service stations around Japan that give customers an attractive, comfortable atmosphere.

We also try to help our dealerships and other business partners sell more. To this end, we carry out TACS (Top of Area to Customers' Satisfaction) activities aimed at helping business partners offer higher quality service and thus boost sales.



Value Style service station

## JOMO Efforts

### Training Programs Aim for Satisfaction Among Dealerships and End Users

**Naoki Kasuya**, Retail Support, Petroleum Retail Marketing Dept.

In our retail support business, it is important that our dealerships make a profit and instill end users with trust in JOMO service stations. That is why I believe it is important for our department to deepen communication with customers through daily inspection activities. We make our management more customer-service centered supporting sales staff with training programs that cover topics like maintenance techniques, product knowledge and a spirit of hospitality.

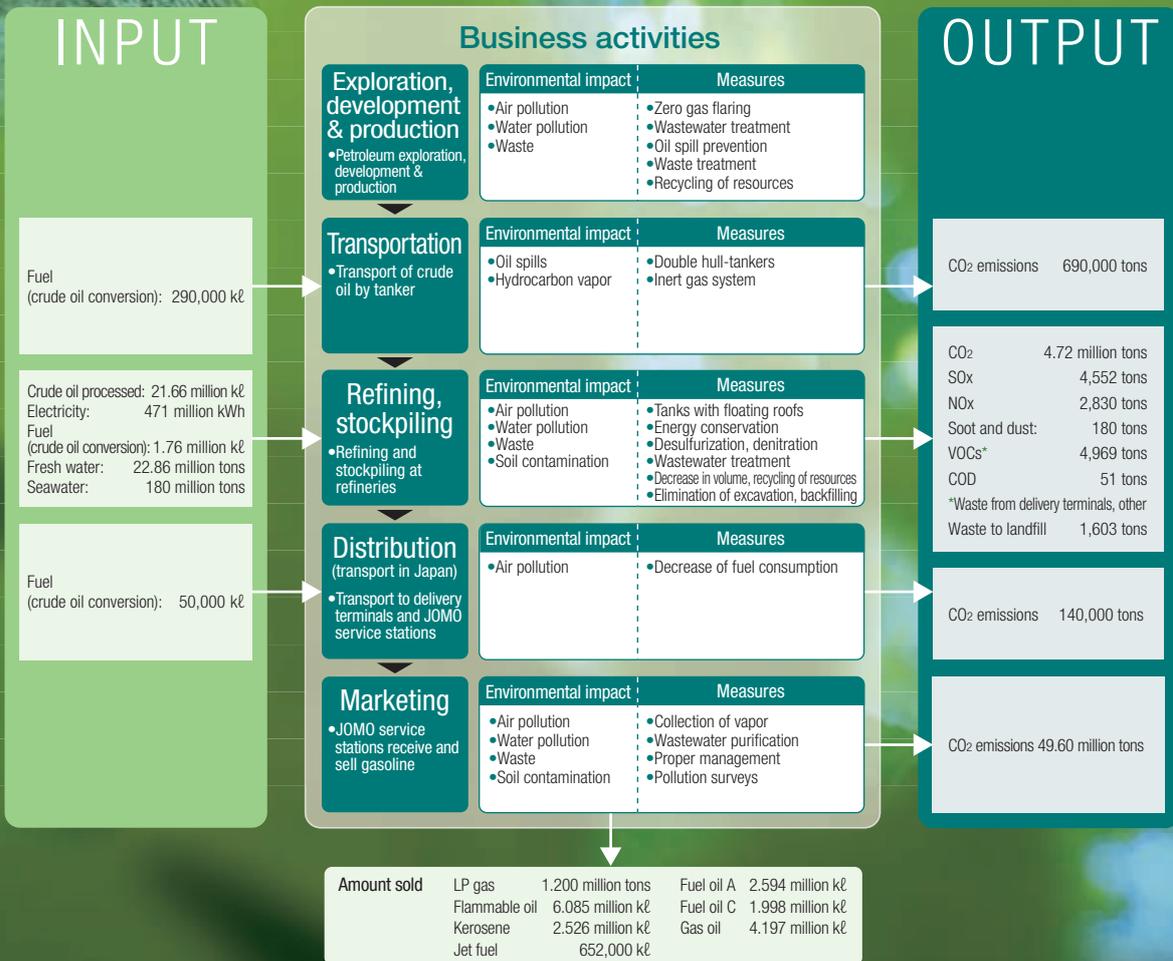


# Working for the Environment

Protecting the environment in all business activities is a top priority for Japan Energy, whose energy-related activities include refining and marketing petroleum products.

In our Mission, we state that we will “use the energy of the Earth wisely.” This means pursuing energy conservation and lessening environmental impact, and developing and spreading the use of technologies and products that protect the environment.

## Material balance



Note: The above figures were calculated according to the LCA (life cycle assessment) method (an assessment of the environmental impact after measuring resource consumption and emissions in all processes: manufacturing, use, and disposal of products).

Note: CO<sub>2</sub> emissions were calculated using the Greenhouse Gas Emission Measuring and Reporting Manual, published by the Ministry of the Environment.

# Environmental Management

To ensure that our business activities do not harm the environment, we have built an environmental management system, and all of our refineries and plants are ISO 14001 certified. We also have environmental education programs that make employees aware of the importance of protecting the Earth in all that they do.

## Environmental Protection Policies

Japan Energy's Mission states that we will "use the energy of the Earth wisely" and "always give top priority to safety and environment." This thinking was the basis for the creation of our environmental policies, which guide us in protecting the environment and reducing environmental impact.

### Environmental Protection Policies

1. We will strive to prevent pollution by considering the environmental effects of all our operations.
2. To use resources wisely, we will strive to recycle and use energy efficiently.
3. We will comply with all relevant laws and strive to attain environmental standards that earn the trust of the community.
4. We will contribute to improvement of the global environment through the research and development of environmentally friendly products and technologies.

## ISO 14001 Certified Sites

Japan Energy complies with environmental rules and regulation that help the company improve its ability to protect the environment.

All of our refineries and plants have been certified for ISO 14001\* and we are currently using an environmental management system based on the FY2004 version. We have an organizational structure for planning and implementing regular environmental protection efforts—energy saving, recycling, reducing waste, and preventing air and water pollution—that are geared to the needs of each of the business fields and regions we operate in.

\* ISO 14001: An international accepted standard for environmental management systems issued by the ISO (International Organization for Standardization).

### ISO 14001 Certified Sites

	Mizushima	Chita	Funakawa	Sodegaura	Kawasaki	Kashima
Date certified	February 26, 1999	March 5, 1999	November 27, 1998	March 18, 1998	May 21, 1999	March 12, 1999
Certification body	LRQA	JQA	LRQA	LRQA	JQA	JQA
Certificate code	YKA 0772494	JQA-EM 0353	YKA 0771917	771512	JQA-EM 0427	JQA-EM 0373

## The Roots of Our Environmental Protection

Our environmental protection efforts can be traced back to 1914, when Kuhara Mining Co., our predecessor company, spent a huge sum of money to build a giant stack to prevent smoke hazards from the Hitachi Mine.

In the copper mining and smelting that could very well be called the start of Japanese industry, every company battled with the problem of smoke hazards. After much trial and error, a solution was finally arrived at with the construction of what was at that time the world's tallest smokestack.

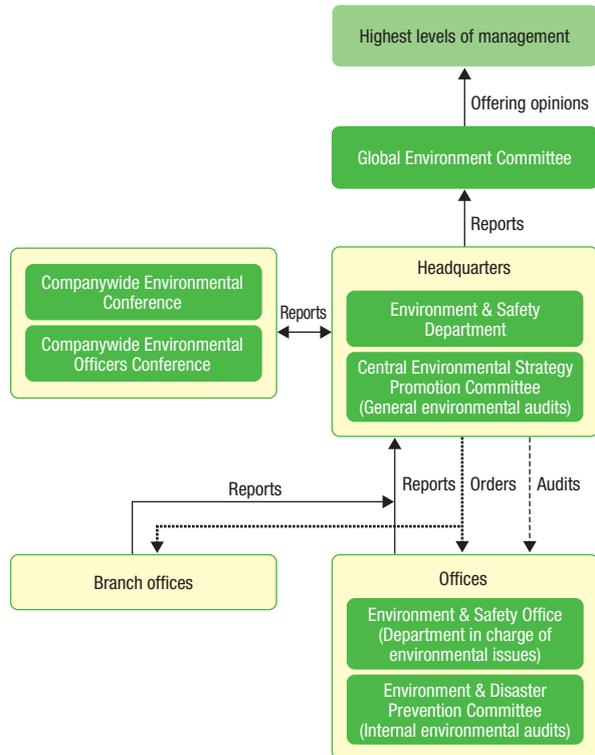


Giant smokestack at the Hitachi Mine

## Environmental Management System

The Global Environmental Committee was established to carry out company-wide environmental protection activities that follow rules and guidelines.

### Environmental Management System



## Environmental Management

### Environmental Audits

To ensure that the company's environmental management system is being properly run and maintained, Japan Energy undergoes regular reviews by ISO certification institutions and carries out its own audits.

Our in-house environmental audit system consists of a comprehensive audit carried out by headquarters (once a year) and an internal audit conducted at each Japan Energy site. Both are carried out according to auditing methods set out in our outlines for environmental auditing and internal auditing.

Any problems discovered in the reviews and audits are immediately remedied. Follow-up audits are then conducted to ensure that the solutions were in fact suitable for the problem.



A review by an ISO certification institution

### Environmental Education

We believe that environmental management starts with environmental education. That's why we strive to ensure that employees are aware of environmental issues and have the knowledge needed to take action.

#### Environmental Education at Refineries

Environmental protection is an essential part of TPM (total productive maintenance) activities conducted at refineries.



Training in the manufacturing division

In addition to offering environmental education programs that form the foundation of our environmental protection efforts, we urge employees to take the environment-related certification programs we have been offering; these include pollution control and energy management.

#### Environmental Education in the Marketing Division

Our marketing division, together with dealerships and sales companies that operate JOMO service stations, has introduced the TACS\*1 program and the JOMO Lube Power Up Program\*2, whose aims include improved gas mileage and reduced car exhaust. These programs educate JOMO service station staff about offering customers products and services like high-quality gasoline and lubricating oils and maintenance that are suitable to their cars.

\*1 **TACS:** Top of Area to Customers' Satisfaction. JOMO service stations aim for what customers consider to be the highest level of customer satisfaction.

\*2 **JOMO Lube Power Up Program:** Education and certification programs to raise salespersons' knowledge and maintenance techniques for lubricating oils. Those completing the program are certified as JOMO Oil Masters. This system was introduced in 1995 and was approved as a business career system by Japan's Ministry of Labour (now the Ministry of Health, Labour and Welfare).

#### Companywide Environmental Conference

The Companywide Environmental Conference has been held once a year since 2003 as an opportunity for employees of Japan Energy and group companies to present and debate environment-related efforts and research.

About 100 took part in the FY2006 conference in September at the Japan Energy headquarters. The four topics of presentation and debate included Case Studies in Zero Emissions and Efforts to Reduce Wastewater.



## FY2006 Environmental Accounting

We use environmental accounting to assess the effectiveness of our environmental management.

Although we succeeded in decreasing environmental costs through energy conservation measures, increases in fuel costs due to rising crude oil prices resulted in an overall increase in environmental costs.

### Environmental Costs

Millions of yen

Item	FY2006	FY2005
1 Environmental costs for products (decreasing sulfur content of heavy fuel and gas oil, improving gasoline quality)	38,398	30,028
2 Direct cost of reducing environmental impact		
(1) Preventing pollution (air, water, and soil pollution)	5,633	3,839
(2) Protecting the global environment (preventing global warming)	829	694
(3) Waste treatment, recycling	239	196
3 Cost of environmental activities		
(1) Management activities	393	357
(2) Social activities	19	10
(3) Environmental donations and contributions	684	607
4 R&D to reduce environmental impact	1,488	1,532
<b>Total</b>	<b>47,682</b>	<b>37,263</b>

### Investment

Millions of yen

Item	FY2006	FY2005
1 Costs to build and improve environmental protection facilities	2,981	5,254
2 Costs to maintain equipment (repair and upgrade)	14,544	13,885
<b>Total</b>	<b>17,525</b>	<b>19,139</b>

### Effect

#### Atmospheric improvements

- Reduction in sulfur oxide emissions  
Sulfur produced: 192,328 tons/year
- Reduction in benzene emissions  
Benzene recovered: 47.3-ton increase (against FY1998)

#### Reduced resource consumption, recycling

- Reduction in fuel use through energy consumption  
Crude oil equivalent: 32,439 kl (against FY2005)
  - Amount of oil recycled  
Crude oil equivalent: 4,544 kl/year
- By reducing the amount of resources used and recycling more, we saved approximately 1.78 billion yen.

Calculation period: April 2006-March 2007

Scope of calculations: Japan Energy Corporation and Kashima Oil Co., Ltd.

# Efforts to Prevent Global Warming

The prevention of global warming is an urgent concern around the world. In 2008, the first commitment period of the Kyoto Protocol begins. Japan is obligated to reduce greenhouse gas emissions 6% by 2012 compared to 1990 levels. To contribute to these reduction targets, Japan Energy is pursuing a variety of actions.

## Basic Policy to Prevent Global Warming

For some years now, Japan Energy has been working to reduce emissions of CO<sub>2</sub>, a greenhouse gas, through efforts focused on energy conservation. In particular, we have set unit energy consumption targets that are among the most ambitious in the industry.

Besides reducing fuel consumption in production processes at refineries and plants and during transport, we are also improving gas mileage for cars by developing sulfur-free gasoline and gas oil, and high-quality lubricating oils.

## Energy Conservation at Refineries

Refineries emit CO<sub>2</sub> in several ways, such as through fuel combustion in furnaces during crude oil treatment and through reforming reactors during hydrogen production.

In FY2006, we increased our fuel consumption at refineries due to the larger amounts of crude oil treated. However, thanks to energy conservation efforts like the recovery of heat from furnaces, the recovery of heat using heat exchangers, and limits on the air supplied to furnaces, unit energy consumption\*<sup>1</sup> improved to 8.73 kℓ crude oil/1,000 kℓ, a 1.7% improvement over the previous year.

We will continue to strive to reduce CO<sub>2</sub> emissions through these and other energy conservation actions.

\*<sup>1</sup> **Unit energy consumption:** There is a variety of facilities for refining, and the configuration of these facilities differs among refineries. Using an adjustment coefficient that matches the characteristics of the facilities at the refinery, we calculate the amount of energy used per unit of production. The smaller the unit of energy consumption, the higher the efficiency.

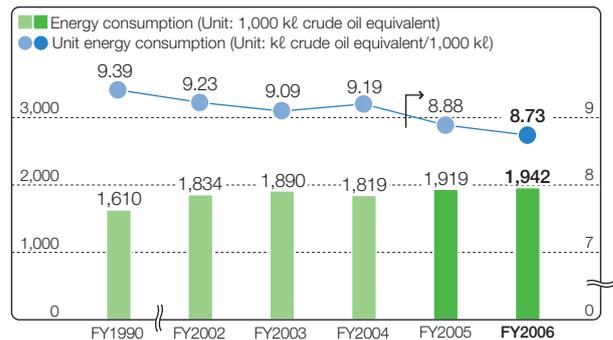
## Wind Power Generation Facilities

Japan Energy has begun generating electricity from wind power, a new clean energy source. In March 2003, we opened wind generation facilities at the Kashima Oil Refinery and in FY2006, these facilities generated 3,685 million kWh of electricity (crude oil equivalent: 928 kℓ).

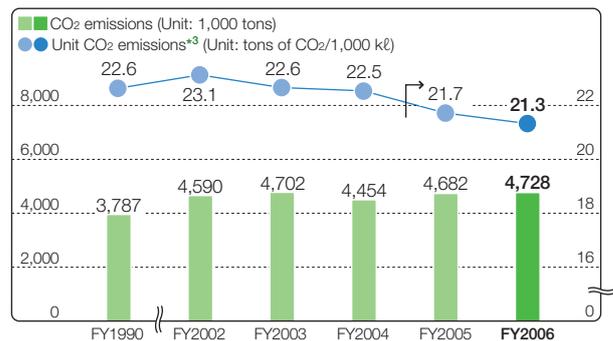


Wind power generation facilities

## Energy Consumption and Unit Energy Consumption\*<sup>2</sup>



## Carbon Dioxide (CO<sub>2</sub>) Emissions and Unit CO<sub>2</sub> Emissions\*<sup>2</sup>



\*<sup>2</sup> The calculation method has been revised based on the calculation method for greenhouse gas emissions in line with revisions in the Law Concerning the Measures to Cope with Global Warming.

\*<sup>3</sup> **Unit CO<sub>2</sub> emissions:** The amount of CO<sub>2</sub> emissions (tons) per 1,000 kl of production. The smaller this figure, the less the CO<sub>2</sub> emissions.



## Energy Conservation in the Transportation Division

Japan Energy transports petroleum products by either land or sea. Land transportation is carried out by tank trucks and railway tanker cars, while sea transport is carried out by coastal tankers.

As shown below, we have for some time now been increasing the capacity of our coastal tankers and tank trucks in order to improve transportation efficiency and consequently consume less fuel.

The Law Concerning the Rational Use of Energy was revised and enacted in April 2006. In line with this, Japan Energy has been working even harder to conserve energy.



Large tank truck

### Increased capacity of tank trucks (average truck size)



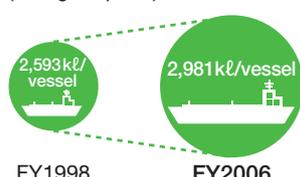
FY1998

FY2006



Large coastal tanker

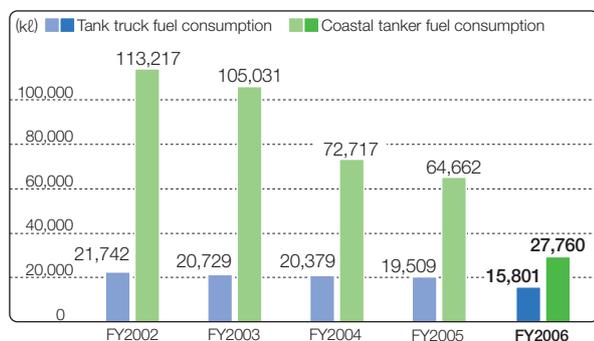
### Increased capacity of tankers (average ship size)



FY1998

FY2006

### Energy Consumption of Tank Trucks and Coastal Tankers Transporting Fuel Oil\*



\* Based on the Law Concerning the Rational Use of Energy, we changed the method of calculation for energy consumption in FY2006.

## Clean Development Mechanisms (CDM)

The Kyoto Protocol has what are called the Kyoto Mechanisms, which recognize Clean Development Mechanisms (CDM), joint implementation\*<sup>1</sup> and emissions trading\*<sup>2</sup> as ways to reduce greenhouse gas emissions.

Under CDM, a developed country provides a developing country with technology or capital, and credit for the resulting emissions in greenhouse gases goes to the developed country. Japan Energy's efforts to curb global warming include purchasing a large number of international funds that invest in CDM.

\*<sup>1</sup> **Joint implementation:** A system in which developed countries work together on energy conservation projects, with credits for greenhouse gas emissions transferred between them.

\*<sup>2</sup> **Emissions trading:** A system in which developed countries buy and sell emissions credits.

### Emission Trading through JMD Greenhouse Gas Reduction Co., Ltd.

As part of efforts to reduce greenhouse gas emissions, in May 2006, we signed a contract to purchase 1.5 millions tons of CO<sub>2</sub>-equivalent emission credits from JMD GHG Reduction Co., Ltd. (hereafter referred to as JMD), a company jointly established by JGC Corporation, Marubeni Corporation, and Daioh Construction Co., Ltd.

JMD plans to carry out CDM business in which it recovers and breaks down CFC, a greenhouse gas, emitted from a CFC-substitute production plant in Zhejiang, China. Breaking down this greenhouse gas CFC will yield 40 million tons of CO<sub>2</sub>-equivalent emission credits.

Under this contract, in the first commitment period of the Kyoto Protocol (from 2008 to 2012), Japan Energy will obtain emission credits equivalent to 300,000 t-CO<sub>2</sub>/year (approximately 7% of Japan Energy's annual greenhouse gas emissions).

### Japan Energy Invests in Japan Greenhouse Gas Reduction Fund

In December 2004, we invested \$1 million in the Japan Greenhouse Gas Reduction Fund (JGRF).

The fund was jointly established by the Japan Bank for International Cooperation, the Development Bank of Japan and private Japanese companies. This fund purchases emission credits generated by greenhouse gas reduction projects in developing countries and Eastern Europe and distributes these among investors in the fund.

By investing in this fund, Japan Energy supports projects that reduce greenhouse gas emissions.

# Environmental Efforts at Refineries and Plants: Part 1

Japan Energy has environmental measures for dealing with air pollutants (SOx, NOx, soot and dust, and VOCs) generated during refining and production, and wastewater containing oil and other pollutants that is emitted from refining facilities. We also do all we can to decrease such emissions.

## Preventing Air Pollution

### Reducing Sulfur Oxides (SOx)

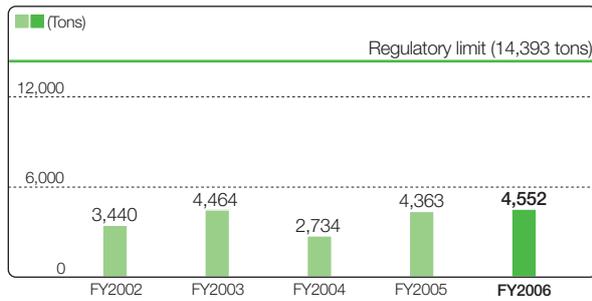


Sulfur recovery and flue-gas desulfurization equipment

We use low-sulfur fuel in our furnaces and boilers. As well, emission-reducing devices on facilities have allowed us to achieve emissions that are 35% below regulatory limits.

- Use of low-sulfur gas and heavy fuel oil
- Installation of flue-gas desulfurization devices

#### SOx Emissions



**Note:** In FY2004, figures were lower because of shut-down of equipment due to damage from high tides (Mizushima Refinery) and an accident (Kashima Refinery).

### Reducing Nitrogen Oxides (NOx)

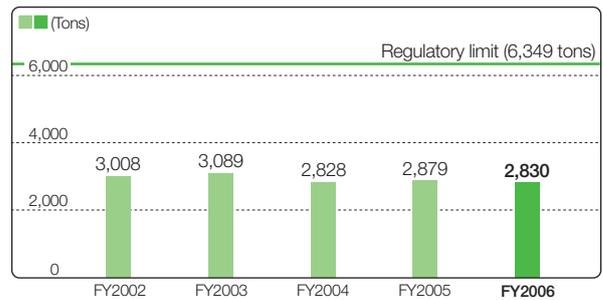


Flue-gas denitration equipment

Furnaces and boilers use low-nitrogen fuel. As well, emission-reducing devices on equipment have allowed us to achieve emissions 50% below regulatory limits.

- Use of low-nitrogen fuel oil
- Installation of low-NOx burners
- Installation of flue-gas denitration equipment

#### NOx Emissions



### Reducing Soot and Dust



Electrostatic precipitators

Refinery furnaces and boilers use more fuel gas than heavy fuel oil. For boilers that use larger amounts of heavy fuel oil, we installed facilities that reduce the soot and dust generated, thus achieving emissions that are 15% below regulatory limits.

- Installation of electrostatic precipitators

#### Soot and Dust Emissions



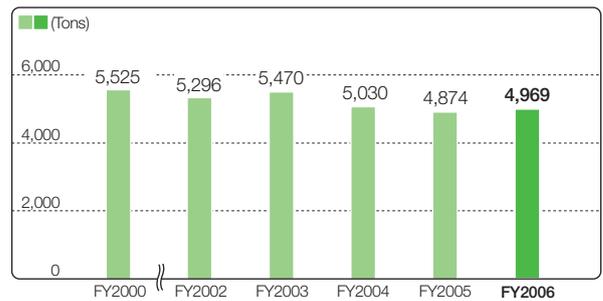
### Reducing Volatile Organic Compounds (VOCs)



Hydrocarbon recovery facility

We have equipment and devices that help prevent the release of volatile organic compounds (such as benzene, toluene, and xylene contained in naphtha and gasoline). By FY2010, we plan to have replaced nine fixed-roof tanks with floating-roof tanks.

#### VOC Emissions



**Note:** Above figures are emissions for the entire Japan Energy (including delivery terminals).

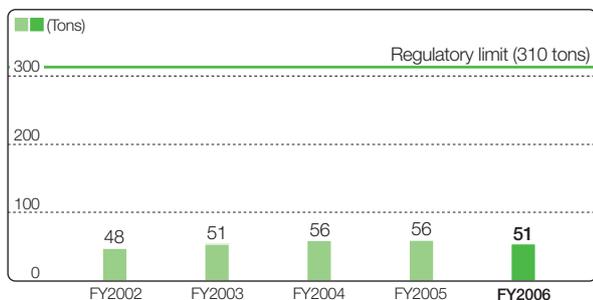
**Note:** The amounts of sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust, and volatile organic compounds (VOCs) will depend on the amount of crude oil processed, the type of fuel used, and under what conditions the equipment is operated.

## Preventing Water Pollution

### Wastewater Management at Refineries and Plants

As shown in the diagram on the right, we have proper wastewater treatment systems with type of treatment depending on whether it contains oil or sludge. On the process lines, we control wastewater by checking indicators such as chemical oxygen demand (COD), which shows how polluted the water is. These indicators vary depending on the volume of wastewater, something we are striving to reduce.

#### COD Sludge Loading



**Note:** The Kashima Oil Refinery is not included here because its waste is treated at the Ibaraki Prefecture Kashima Sewerage Office's Fukushima Treatment Plant.

## Proper Management of Chemicals

### Managing and Rendering PCBs Harmless

We have condensers (262) and PCB-containing oils (691 drums) stored at our refineries, plants, delivery terminals, and R&D center.

We plan to detoxify these over the four years between 2009 and 2012 and are currently undergoing early registration with the Japan Environmental Safety Corporation (JESCO)\* for this process.

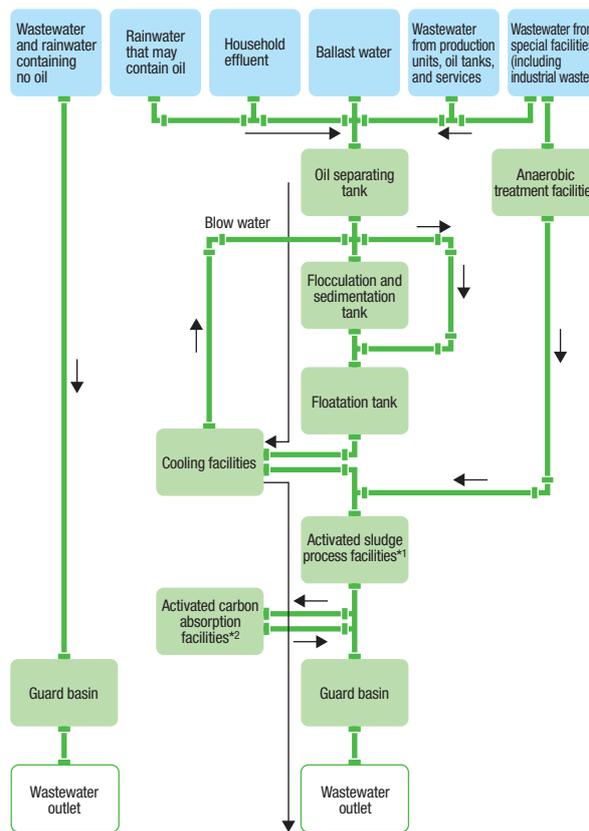
#### \* Japan Environmental Safety Corporation (JESCO):

Established in April 2004 as a special company wholly owned by the government, JESCO has taken over the duties of PCDD waste treatment from the former Japan Environment Corporation.



Inside a storage facility

#### System for Treating Polluted Water



\*1 Activated sludge process facilities



\*2 Activated carbon absorption facilities

## Information Disclosure on Release and Transfer of Chemicals

Regarding chemical substances handled, released, and transferred at Japan Energy refineries and delivery terminals, the amounts of those that are covered by the PRTR Law\*1 are measured and reported.\*2

\*1 **PRTR (Pollutant Release and Transfer Register) Law:** Law for the registration system of specified chemicals that are released into the environment. The aim is to improve the management of chemical substances.

\*2 For details on the amounts of each substance released and transferred, refer to the Japan Energy home page.

See our Web site for environmental data on each of our sites.

<http://www.j-energy.co.jp/sitereport/>

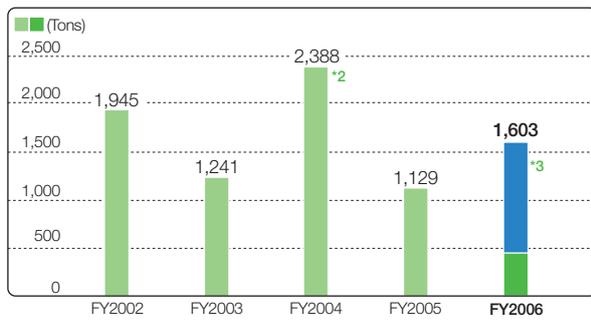
# Environmental Efforts at Refineries and Plants: Part 2

Japan Energy works to reduce waste to landfill by recycling waste and reusing resources. We are also striving to prevent soil pollution at refineries and plants and are carrying out green purchasing when procuring raw materials.

## Reducing Waste, Increasing Recycling

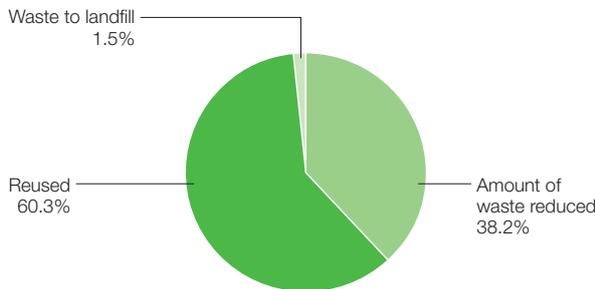
The waste generated at refineries includes a wide range of substances: waste oil, sludge, waste acid, waste alkali, dust collected from electrostatic precipitators, used catalysts, and construction materials. We reduce as much of this as possible: for example, we recover oil from waste oil and sludge, and we dehydrate or incinerate sludge. We also try to put this waste to effective use. For example, we re-refine waste oil, make sludge and dust into the raw material for cement that can be used as roadbase, and separate the remains of construction material such as scraps of metal and concrete.

### Waste to Landfill\*1



\*1 Our goal is for waste to landfill to be no more than 1.0 % of all waste generated.  
 \*2 In FY2004, damage from high tides (Mizushima Refinery) resulted in the generation of unforeseen waste, and waste to landfill subsequently increased.  
 \*3 In FY2006, waste to landfill increased due to soil recovered for treatment at the Funakawa Works.

### Status of Waste



Note: Includes 36,622 tons of recovered soil for treatment at the Funakawa Works.

## Strict Soil Contamination Measures

We carry out regular soil contamination surveys on the sites of all refineries, plants, delivery terminals, former JOMO service stations and other company-owned land. Any contamination discovered is dealt with appropriately.

### Treating Soil at the Funakawa Works

At the Funakawa Works, in FY2001 we began soil remediation work on the premises as well as on neighboring company-owned land. Work on the company-owned land outside the premises, which began first, was completed in FY2005.

As much of the recovered polluted soil as possible was recycled; for example for use as raw material for cement.



Loading intermediate treatment soil onto the ship (to deliver as raw material for cement)

## Green Purchasing

While petroleum products are an important source of energy, their use gives off CO<sub>2</sub> emissions. So for purchasing the necessary additives (chemical raw materials) for making petroleum products, we have Green Procurement Guidelines that we use to choose from which suppliers we will purchase. This green purchasing is based on our belief that we must do everything possible to reduce environmental impact during production and use of petroleum products.

We have also clarified our purchasing demands and conditions and are calling on suppliers to be environmentally friendly in all aspects of their business.

# Environmental Efforts at JOMO Service Stations

We have been working with our service station dealerships to recycle waste and reduce wastewater from car washes. We also have been working to prevent soil contamination and stop emissions of vapor from gasoline and other substances.

## Energy Conservation

### Introducing Energy-Efficient Lighting

In 2006, JOMO service stations started introducing energy-efficient lighting systems that were jointly developed by JOMO Enterprise Co., Ltd. and Toshiba Corporation. The resulting reductions in electricity use help us reduce impact on the environment.

In FY2006, we introduced these lighting systems at 89 JOMO service stations. We expect to have 161 stations using this lighting as of FY2007 and 250 as of FY2008.

### Installation of Solar Panels

Some JOMO service stations have solar panels on the roof for generating clean solar energy. As of the end of March, 2007, these solar power systems were operating on 16 service stations.



JOMO service station with solar panels

## Treating Waste According to Law

Handling of waste oil and waste elements generated at JOMO service stations is outsourced to our affiliate company JOMO Guardian Co., Ltd. for treatment as industrial waste. The company properly deals with all industrial waste by, for example, recycling or treating it in accordance with laws.

JOMO Guardian also selects reliable subcontractors to ensure that strict manifest systems are applied and that all waste data is kept track of.

## Reusing Car Wash Water

Because JOMO service stations use large amounts of water to wash cars, we have recycling equipment that allows us to make effective use of our water resources by recycling between 80% and 90% of the wastewater. It takes about 150 liters of water to wash one car, so assuming the water recycling rate is 80%, that means we can wash four more cars with the water recycled from washing one car.



Water recycling car wash machine

## Purifying Wastewater

Surface wastewater at JOMO service stations is collected in an oil separating tank where oil and sludge are removed.

## Preventing Soil Contamination

Since 2002, a year before the Soil Contamination Measures Law went into effect, JOMO service stations have been regularly carrying out risk control measures for fuel leakage. In 2002, using the NERA (Network Environmental Risk Assessment), each and every JOMO service station was surveyed for soil contamination risk. Starting with high-risk stations, all stations underwent soil gas surveys and boring surveys (secondary survey). Based on these results, we took measures including removal of pollutants, improvement of facilities, and strict monitoring.

As of FY2006, 295 JOMO service stations underwent secondary surveys, with 21 judged as requiring cleanup of soil and groundwater. Two of these stations have already repaired facilities and removed pollutants, with work in progress at the other 19. Plans are for surveys at 100 more stations in FY2007. To protect the soil around underground tanks, we are reducing risk by using underground facilities of the highest level of safety, such as double-wall tanks and resin pipes. In April 2006, all JOMO service stations were given a soil protection measures instructional video, another way to ensure that station staff are fully able to protect their environment.

Japan Energy also participates in the Japan Soil Solutions Group (JSSG), an alliance of companies in the field of soil environment protection, through which we offer comprehensive support to JOMO service stations in soil environment efforts. In FY2006, 410 JOMO service stations judged to be at risk under NERA assessments were given a questionnaire asking what they are doing to properly manage their underground tanks. Based on the results of this questionnaire, in FY2007 we plan to consult individually with all service stations.



Soil contamination survey

## Fuel Oil Vapor Recovery

When tank trucks fill JOMO service station tanks with gasoline and other oils, vapors containing hydrocarbon escape. Besides causing photochemical smog, this vapor sends foul odors into the neighboring area and can harm the health of service station customers and employees. That's why since 1990 JOMO service station tank vents have had recovery devices that send the vapor back into the tank truck.

In line with relaxed Japanese fire regulations allowing the installation of breather valves to stop vapors from escaping, we installed these valves at 300 stations in the Kanto area.

# Environmental Efforts in Products and Services

Japan Energy provides a wide range of products, including fuel, lubricating oils, and petroleum products. We strive to develop and supply products whose use will have minimal impact on the environment.

## Environmentally Friendly Fuel Oil

At Japan Energy, our goal is to provide environmentally friendly products; for example gasoline and gas oil that reduce the greenhouse gas CO<sub>2</sub> and toxic substances in vehicle exhaust.

### Biogasoline

In April 2007, Japan Energy began selling biogasoline (bio ETBE blend), a mixture of conventional gasoline and plant-based fuel (on a distribution trial basis).



JOMO service station selling biogasoline

### Sulfur-Free Fuels

Sulfur-free fuel contains almost no sulfur. In Japan, regulations that limit sulfur content to 10 ppm (0.001%) or less were enacted for sulfur-free gas oil in 2007. Similar regulations will be enacted for gasoline in 2008. Sulfur-free gasoline and gas oil contribute to curbing global warming. Not only do they offer cleaner vehicle exhaust; they also contribute to improved functioning and durability of the exhaust treatment devices on environmentally friendly cars, and to improved gas mileage.

Japan Energy is well ahead of these regulations: we have been offering sulfur-free premium gasoline since May 2002 and sulfur-free regular gasoline and gas oil since January 2005.

### Lowering Benzene Content in Gasoline

Since January 2000, we have reduced the amount of the suspected carcinogen benzene in gasoline from 5% to no more than 1%.

### Reducing Vapor Pressure

To reduce evaporative emissions containing hydrocarbons that may cause photochemical smog, we reduced summertime gasoline vapor pressure from a maximum of 78 kPa to 65 kPa.

## Environmentally Friendly Lubricating Oils

Japan Energy has provided environmentally friendly lubricants under the motto "Be gentle on people, the environment, and resources." As part of this, in February 2004 we began offering the JOMO ECO Series, a lineup of products that offer longer product life, biodegradability, and compliance with environmental regulations.

## Automobile Lubricating Oils

### ● ECO Series: JOMO DELSTAR DH-2



JOMO DELSTAR DH-2LD

This diesel engine oil complies with the DH-2 engine oil standards that cover vehicles equipped with DPFs (diesel particulate filters). We also have a long-drain engine oil product (DELSTAR DH-2LD). These low-ash products are suitable for not only diesel engines equipped with DPFs but also for all large diesel engines without DPFs.

### ● ECO Series: JOMO CNG Oil/JOMO GE Power Oil



JOMO GE Power Oil

This high-performance oil with superb oxidation stability is suitable for engines using compressed natural gas (CNG) or liquefied petroleum gas (LPG). It is a high-end, long drain engine oil with a low ash content and so it cuts down on post-combustion deposits, thus contributing to reduced maintenance costs.

### ● JOMO Dreamer Series



JOMO Dreamer Series

The JOMO Dreamer Series comprises motor oil, automobile diesel oil, ATF (automatic transmission fluid) oil, and CTV (continuously variable transmission) oil. Of the motor oils, there is OW-20, an oil offering the ultimate in environmental performance and gas mileage, as well as our existing products of OW-30, 5W-40, and 10W-40, which have all been designated for the highest standard (SM grade) of the American Petroleum Institute (API).

## Industrial Lubricating Oils

### ● ECO Series: JOMO Bio Series



JOMO Bio Hydro

This lubricant series have biodegradability, so leaks cause minimum impact on the water and soil. They have superior oxidation stability full synthetic oils. All of these products have been certified with the Japan Environment Associations' Eco mark.

### ● ECO Series: JOMO Hydflux SES



JOMO Hydflux SES

This ultra-energy-efficient hydraulic oil contributes to energy savings in hydraulic equipment. In addition to energy savings, this superbly performing product offers wear resistance, long life, and reductions in sludge. It went on sale in October 2006.

### ● JOMO Hydflux HP

This hydraulic oil has high temperature flash point of at least 250°C and is thus designated as flammable liquid and not a dangerous substance, under Japanese fire laws. Its superior qualities include energy efficiency, wear resistance, long life, and reductions in sludge.

### ● Refrigeration Compressor Oil

In 1989, we introduced the world's first synthetic polyol-ester based refrigeration compressor oil that complied with CFC restrictions. Our products now enjoy the top share of the Japanese and world markets.

## Environmentally Friendly Petrochemical Products

Japan Energy supplies a wide range of petrochemical products including industrial detergents and industrial solvents. We are continuously developing environmentally friendly products, such as non-toluene, non-xylene solvent, and making every effort to eliminate substances that are restricted by the Occupational Health and Safety Law and the PRTR Law from our products.

### Industrial Detergents

#### ● NS Clean

Used for removal of metal processing oil and particulates, for draining water, and as a substitute for chlorine-based detergents, this hydrocarbon detergent has superb cleaning and drying properties and can be used repeatedly.

#### ● EM Clean

Used to complement NS Clean, this highly-soluble hydrocarbon detergent is effective in removing stubborn pitch, wax, urethane, and epoxy resin.

### Industrial Solvents

#### ● Cactus Normal Paraffin

This industrial solvent has superb biodegradability and minimal odor, and contains almost no toluene, xylene, or other aromatic hydrocarbons that pollute the atmosphere.

#### ● Cactus Solvent

We have a wide-ranging lineup of toluene or xylene solvent substitutes that are not covered by the PRTR law.

#### ● TS Paraffin

Highly purity normal paraffin used for the latent heat storage materials (phase change materials). By using these materials, energy consumption and CO<sub>2</sub> emissions can be reduced. TS paraffin is now broadly introduced to the field of the air-conditioning system, textile and clothing, building materials and automobile.

## Environmentally Friendly LPG

LPG (liquefied petroleum gas) is a clean energy sources with a relatively low environmental impact compared to other types of fossil fuels: it emits little CO<sub>2</sub> and almost no SO<sub>x</sub> and NO<sub>x</sub>, environmentally harmful substances. And because it can be transported in containers, it can be taken to disaster-stricken areas, making it an easily distributable source of energy. Besides educating the public on these features and benefits of LPG, Japan Energy is striving to spread the use of environmentally friendly LPG energy systems and LPG vehicles.

## Spreading the Use of Residential Cogeneration Systems

Japan Energy is working to spread the use of residential gas cogeneration systems using LPG. Residential gas cogeneration systems (called the ECOWILL in Japan) allow homes to generate their own electricity and use the heat generated by this for water and space heating. With a high energy efficiency of 85% and covered by government subsidies for buyers, these systems are enjoying rapidly growing popularity.

## Promoting the Use of LPG Vehicles

LPG vehicles are seeing increasing use among Japanese national and local government agencies as low-pollution vehicles: they give off exhaust that has no black smoke or suspended particulate matter (SPM) and extremely low levels of nitrogen oxides and hydrocarbons.

Starting in FY2007, to spread the use of LPG vehicles in the JOMO Group, we began offering subsidies to switch from diesel vehicles to LPG vehicles. This combines with national government subsidies in efforts to meet our targets for the use of LPG vehicles.

### JOMO LPG Cogeneration Study Group

Since 2005, Japan Energy has held the LPG Cogeneration Study Group for dealerships and others to help spread the use of LPG cogeneration systems. As in FY2005, two sessions of the study group were held in FY2006, featuring demonstrations of the ECOWILL and presentations on fuel cell experiments, case studies from dealerships, and lectures by city gas companies. Participants praised the event for the valuable information it provided.

Third meeting: August 24, 2006 (Attendees: Approx. 60)

Fourth meeting: February 14, 2007 (Attendees: Approx. 70)



LPG Cogeneration Study Group

# R&D into Environmentally Friendly Technologies and Products

We work to protect the Earth's environment through research and development of technologies for clean energy and environmental protection.

## Clean Energy R&D

### Fuel Cells

With the pressing need to diversify energy sources and create an environmentally friendly, recycling-based society, there has been an increasing focus on fuel cells, which generate efficient and clean energy through the chemical reaction of hydrogen and oxygen.



The JOMO ECOCUBE, a residential fuel cell

Japan Energy has been carrying out in-house research into fuel cells since the 1980s.

Japan Energy is taking part in the national government's JHFC (Japan Hydrogen & Fuel Cell Demonstration Project), and we have opened a hydrogen refueling station, which will supply hydrogen to fuel cells, in the Funabashi area of Chiba Prefecture in Japan. We have also developed technology for a complex monitoring system that immediately detects leaks of hydrogen gas at hydrogen refueling stations using three types of sensors (sound, gas, and image).



Mobile hydrogen refueling station

### Japan Energy Takes Part in Large-Scale Experiments with Stationary Fuel Cells

Since FY2005, Japan Energy has been taking part in large-scale experiments with stationary fuel cells run by the New energy Foundation (NEF). We installed 30 fuel cell systems (JOMO ECOCUBE) in homes in FY2005 and 40 in FY2006 and are currently gathering data on their operation.

This is what we have found so far:

- Primary energy savings rate: 10-20%
- CO<sub>2</sub> emission reduction rate: 20-30%

We are continuing our participation in FY2007, with plans to install 34 fuel cell systems. These efforts will prepare us for the inevitable widespread use of fuel cells.

### Environmentally Friendly Clean Fuels

CO<sub>2</sub> in vehicle exhaust is a cause of global warming. To reduce this impact, experts are seriously looking at carbon-neutral biofuels for automobiles. Japan Energy is fully participating in government-sponsored experimental research projects on biofuels like ETBE\*1, ethanol, and BDF\*2. We are also moving full speed ahead on in-house research to design higher-quality automobile fuels. From April 2007, as a support project for the Ministry of Economy, Trade and Industry, we began selling a regular gasoline, called biogasoline, blended with ETBE (on a distribution trial basis). In addition, we are looking into ways to improve the quality of gasoline in order to meet the needs of automobile engines that are being developed using numerous technologies to improve gas mileage. As for reducing sulfur content, we are carrying out research and development into effective ways to eliminate sulfur in fuel, including high-performance catalysts and absorption. This is helping us make sulfur-free gasoline and gas oil production more streamlined and efficient.

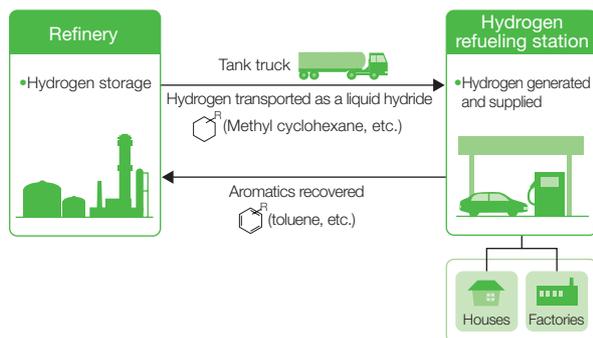
\*1 **ETBE (Ethyl tertiary butyl ether)**: A gasoline component stock made from bioethanol.

\*2 **BDF (Bio Diesel Fuel)**: Diesel engine fuel made from renewable resources such as vegetable oil.

### Hydrogen Energy Supply System

Fuel cells run on hydrogen, and we have researched and developed a way of storing and supplying hydrogen in liquid form, called the organic hydride method. Using hydrogen chemical reactions, such as those with toluene and methyl cyclohexane, to transport the hydrogen, this method can be carried out with existing infrastructure.

#### Hydrogen Storage and Supply System Using the Organic Hydride Method



## Developing Environmental Protection Technologies

### Soil Remediation Technologies

We have developed soil contamination survey and remediation technologies that give us a consistent system for carrying out everything from soil survey to cleaning of the soil. For soil surveys, we developed our own technologies for measuring oil contamination on-site and for measuring microorganisms in the soil. For purification of soil, we are also researching and developing technologies, such as the use of bio-surfactants to clean oil-contaminated soil and the use of plants to purify the soil (called phytoremediation). We are also looking into the feasibility of using bio-surfactants to clean up oil spills on the ocean.

### Reducing the Environmental Impact of Refineries

To reduce the environmental impact of our refineries, we are researching ways to keep machinery clean and automatically measure and monitor advanced processes (called online sensing technology). The goal of all this is to reduce fuel consumption and CO<sub>2</sub> emissions.

As another way to reduce waste and environmental impact, we are researching the feasibility of recycling spent catalysts.

### Participation in Eco Products 2006

Japan Energy took part in Eco Products 2006, a comprehensive fair for environmentally related products and services. Our purpose was to educate the general public about our efforts to protect the environment. In addition to our organic hydride method, which is gaining attention as an efficient way to store and transport hydrogen, we used miniatures and instructional panel displays to introduce efforts like the JOMO ECOCUBE residential fuel cell system, residential refrigerators that help prevent global warming by using a refrigeration lubricant, chemical recycling technology for plastic waste, and our reforestation program.

We also had a section where visitors could experience motor oil viscosity and the heat-storing effects of latent heat storage materials, and a section where visitors could make paper crafts using 3.9 Paper (environmentally friendly paper). The result was an enjoyable way for families to learn about what Japan Energy is doing for the environment.



Eco Products 2006

### A Recycling-oriented Society through the Chemical Recycling of Waste Plastics

The amount of the waste plastics in Japan reached to about 10 million tons/year. About 60% of the waste plastics are recycled already, but conventional recycling methods are energy recovery and mechanical recycling such as producing low-quality of the plastics.

Japan Energy and Plastic Waste Liquefaction Industries Conference have developed the chemical recycling technology that upgrade light thermal cracking oil derived from municipal waste plastics into petroleum products (naphtha, etc.) in the oil refineries for the first time in Japan. The greatest benefit of this technology is that the plastic can be used repeatedly as new products, contributing to a society in which no resources go to waste.

Japan Energy's role in this process is to upgrade light thermal cracking oil derived from municipal waste plastics into petroleum products for the petrochemical industries by an existing upgrading unit in the oil refineries. To do this, we need high-quality light thermal cracking oil derived from municipal waste plastics, so we established standards to be followed by the company that is converting the plastic into oil.

We have developed a successful flow scheme to co-process light thermal cracking oil derived from municipal waste plastics with petroleum in an oil refinery and demonstrated that utilizing an existing upgrading unit at Mizushima Oil Refinery in April 2004. The upgrading technology of thermal cracking oil derived from municipal waste plastics will be extended to that of the whole fractions of thermal cracking oil derived from waste plastics, we aim to make this on commercial basis. Japan Energy will continue its efforts to provide environmentally friendly products by developing gasoline and gas oil that emit minimal CO<sub>2</sub> and which contribute to reduction of hazardous substances in exhaust gas.

In August 2006, for the development of this chemical recycling technology and for efforts towards its practical application, Japan Energy received the Technological Achievement Award from the Research Association for Feedstock Recycling of Plastics in recognition of contributions to a sustainable society.

See the Japan Energy home page for details on the Technological Achievement Award.

[http://www.j-energy.co.jp/cp/release\\_new/2006/20060828\\_1330.php](http://www.j-energy.co.jp/cp/release_new/2006/20060828_1330.php)

### Chemical Recycling of Waste Plastics

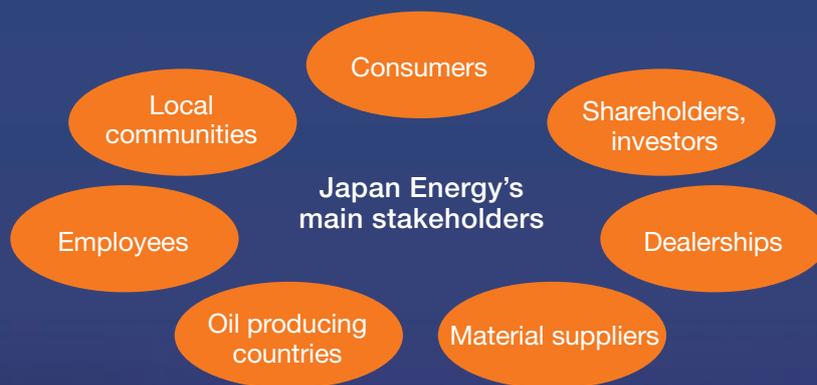


# Together with Society

There are many stakeholders who support the business activities of Japan Energy. We are well aware of the necessity of ongoing compliance so that we can continue to be a trusted and indispensable member of the community.

We also do our utmost to be a good corporate citizen through environmental conservation and social contribution activities.

And we support our employee's participation in these activities because we believe that such volunteer action is important in fostering the "energy in people" and contributing to the "energy in society."



# Together with Our Customers

Besides raising quality in order to give customers the very best products, we are offering them comfortable service stations and the ultimate service under the slogan “smile life with JOMO.” Our goal is excellent customer service and attractive service stations that have an atmosphere distinct to JOMO.

## Boost Quality Control through a New Quality Policy in Line with Our Mission

Japan Energy strives for unified operations with Kashima Oil Co., Ltd., its group refining company. In June 2006, Japan Energy and Kashima Oil established a common Quality Policy for refineries.

This Quality Policy describes the building, maintenance, and implementation of proper quality management systems based on the ISO 9001 quality management system.

In our quality control system, there are administrative departments for each product group under the supervision of the General Manager of Refining Technology in the Petroleum Refining Department, with each of these departments carrying out its own quality control.

The General Manager of Refining Technology in the Petroleum Refining Department oversees quality control of fuel oil, our main product. To boost this quality control, in March 2007 we established the Fuel Oil Quality Assurance Committee. The committee held its first meeting that same month to start quality control improvement activities.

### Quality Policy

1. The Japan Energy Group will aggressively tackle environmental problems by developing, manufacturing, and consistently providing environmentally friendly petroleum products.
2. The Japan Energy Group will build and maintain a proper quality management system based on the ISO 9001 quality management system.
3. The Japan Energy Group will aim to eliminate all quality-related problems with a thorough quality control system covering everything from manufacture or petroleum products to their storage, delivery and sale.

### Quality Control System



### Status of ISO 9001 certification

	Mizushima	Chita	Funakawa	Sodegaura	Kashima
Date of certification	January 10, 1996	February 9, 1994	February 11, 1997	October 8, 1996	November 17, 1995
Certifying institution	LRQA	JQA	LRQA	LRQA	LRQA
Certification number	0941885	JQA-0400	0957130	0955550	JQA-1042

## Education and Training on Proper Management of Personal Information

In April 2005, the Law Relating to Protection of Personal Information (the Personal Information Protection Law) came into full effect. Prior to that, in March 2005, Japan Energy Group established its Personal Information Protection Policy and Fundamental Rules for Personal Information Protection. This was accompanied by e-learning for all employees and explanation meetings at headquarters and sites to ensure that everyone manages personal information properly. In September 2006, we established the Information Security Self-Audit system for all employees, which allows us to see how well employees understand and are abiding by personal information and other security-related rules.

See the Japan Energy home page for our personal information protection policy.

 <http://www.j-energy.co.jp/guide/privacy/policy.php>

## Customer Care for Users of Our LPG

Since FY2005, Japan Energy has been conducting activities whose pillar is the improvement of customer satisfaction. We conduct customer care surveys\* (questionnaires for customers), created yearly plans for the improvement of our service, which we implement and follow up, and carry out customer satisfaction activities based on the PDCA (plan, do, check, act) cycle.



Logo for the customer satisfaction activities of the LP Gas Division

\* **Customer care survey:** In FY2006, 25 companies (41 sites) took part, with 4,700 responses to the questionnaires.

### Error in Repairing Weighing Machine at JOMO Affiliate Filling Station Results in Erroneous Bills

In April 2007 at the JOMO Gotemba Interchange Higashi Station, a mistake was made in repairing a weighing machine, resulting in overbilling of fuel for 278 customers.

This accident was the result of the repair company installing the wrong part in the weighing machine, with the result being that one of the regular gasoline pumps mistakenly measured the amount of gasoline. We contacted customers who had used credit cards and JOMO cash cards. For other customers, we put up posters at the station and an announcement on our home page, offering an apology and a return of the amount overbilled.

## Together with Our Customers

### JOMO Cards (Light and Plus)

We introduced the JOMO Card Plus in 2002 for the convenience and economy of our customers. In October 2006, we introduced the JOMO Card Light, which entitles customers to extra benefits like a discount of 2 yen/liter on gasoline and 1 yen/liter on kerosene, with no membership fees. Besides the benefits for customers, this card also makes JOMO service stations more competitive.



JOMO Card Light



JOMO Card Plus

### Field Communication Program (FCP)

The aim of Japan Energy's Field Communication Program (FCP) is to provide customers with reliable maintenance products. This program aims to create a relationship in which customers seek advice from JOMO service station staff by having staff initiate natural interaction with customers and carry out honest inspections of customers' cars without trying to sell them things they don't need.



Field Communication Program



### Mystery Shopper Program Surveys Customer Satisfaction from the View of the Customer

Since 1994, we have been conducting customer satisfaction surveys twice a year at the 2,000 nationwide JOMO service stations. Starting in October 2006, we had consumers act as "mystery shoppers" in order to get an unbiased, customer-centered view of things like fueling, maintenance, customer service, shop facilities, and cleanliness. By assessing JOMO service stations from the customer's point of view and reflecting survey results in our service, we are raising the level of service we offer to customers.

### Value Style: Comfort and Hospitality

We developed Value Style Stations based on the concept of creating service stations that make customers want to have a look, want to come in, and want to come back again. The stations have a unified exterior look, and the interior is designed with furniture, music, and smells that create a comfortable atmosphere.

There are currently 543 Value Style stations all over Japan, with plans to increase this to 1,000 by FY2008. We also hold Value Style Forums at nine locations around Japan. At Value Style Forums, we conduct awareness activities aimed at achieving the highest level of hospitality, with case studies and presentations on outstanding instances of customer service, check-ups on Value Style standards, and analysis of customer assessments.



We want to bring more abundance and value to our customers' lives

The Value Style logo shows two little birds perched on a branch with a leaf. These are the "birds of happiness" and they are always together. They are a symbol of happiness and continually hope that our customers keep on smiling.

The leaf represents nature and consideration for the environment. This logo expresses the goal of the Value Style concept: that customers come to our service stations in complete peace of mind.

Note: "Value," "Value Style," "smile life," and "smile life with JOMO" are all registered trademarks of Japan Energy Corporation and their unauthorized use is prohibited.



Kids' section



Coffee section and separated smoking room



Hospitality with a smile from staff

## Suggestions from a Customer's View

Value Style and other JOMO service stations have had suggestion boxes since 2005. Things that we see everyday and casually take for granted can lead to new discoveries if we just look at them from a different perspective. These new discoveries give birth to suggestions. These suggestions can come from your impressions or ideas about something, or from something you think could be done better. When you start to think of suggestions, you can guess what customers need, and this leads to service and hospitality that goes beyond customer expectations. Examples our service stations have come up with for improved customer service include stools for small children in the washrooms and reading glasses for the elderly. In FY2006, 900 JOMO service stations around Japan used the suggestion box system.

Efforts planned include the faxing of suggestion box case studies to JOMO service stations and the sharing of suggestion box information, initiatives that will have the added benefit of raising station staff awareness and thus raising the level of customer-focused service.

## Boost Employee Development (Mentality of Hospitality)

In addition to training in handling customers and cleanliness, we also offer regular classes in Value Style hospitality and customer service suggestions. Taking these courses helps instill in employees a mentality of hospitality.

## JOMO Customer Center Puts Opinions and Requests to Work

In 1998, we opened the JOMO Customer Center to gather customer ideas and reflect these in our service. Customers can call a toll-free number and give us their opinions and ideas on improvements that could be made.

### Calls to the JOMO Customer Center (FY2006)

Details	No. of calls
JOMO card (requests for applications forms, Web-related)	4,193
Claims (JOMO card, service at service stations, campaigns, etc.)	952
Products	719
Auto body care	6
Campaigns	131
Guide to service stations	384
Bouquet of Children's Stories	1,213
Crank calls	270
Other	1,719
<b>Total</b>	<b>9,587</b>

These customer opinions and requests are put into a database and are used in creating targets for future improvements. We also regularly fax JOMO service stations a newsletter with helpful customer comments.

 **JOMO Customer Center**  
0120-150-106 (toll-free in Japan; M-F, 9:00 a.m.-5:00 p.m.)

## Customer Extras at JOMO Service Stations

### Barrier-Free Design

JOMO Service Stations are incorporating universal design so that all customers can use them easily with peace of mind.

#### Main initiatives

- Stairs and curbs: Ramps installed
  - Store entrance doors: Automatic or sliding doors
  - Restrooms: Wide space and handrails, Western-style toilets
- Note: There are 30 JOMO service stations that provide full wheelchair access.
- Price list sign: Uses yellow (barrier-free color) LED



Entrance with slope



Wheelchair access restroom

### Inter-Industry Annexing

Japan Energy is collaborating with other industries to take advantage of the specific locations of JOMO service stations.

We continue to think of new ways to make JOMO service stations more convenient and satisfying to our customers.

#### Inter-industry annexed shops

- Beauty salons: 9 shops
- Laundromats: 5 shops
- Dry cleaner: 1 shop
- Fast food: 1 shop
- Coffee shops: 3 shops
- Restaurants: 2 shops



Annexed Laundromat



Annexed beauty salon

# Together with Our Business Partners

In our purchasing relationships with our business partners, we strive to create a win-win situation through a partnership of fair and honest dealings. We also conduct green procurement: the purchasing of products and raw materials with minimal impact on the environment.

All purchasing functions of the Japan Energy Group are outsourced to Nippon Mining Procurement Inc., the purchasing arm of the Nippon Mining Holdings Group.

This company was established in July 2005 to carry out group-wide purchasing for the Nippon Mining Holdings Group. The company complies with all relevant laws in conducting purchasing in a fair and highly transparent manner. Based on the purchasing policies below, we strive to build a partnership founded on mutual trust with all of our business partners.

## Communication with Our Business Partners

Nippon Mining Procurement Inc. has a contact site on the Japan Energy home page for gathering opinions and requests from business partners online. If responding to these requires the assistance of Japan Energy, Nippon Mining Procurement and our relevant division work together to deal with the matter.

In September 2006, an integrated purchasing system was begun for bulk purchasing for the Nippon Mining Holdings Group. With the introduction of the WEB-ED function (an online

electronic data exchange system) and the standardization of dealings with approximately 4,500 business partners, our purchasing is now much more efficient.

Before starting this integrating purchasing system, we held meetings to explain it to business partners, where we distributed a guide outlining things like material transactions and basic rules for purchasing. This guide is available on the Japan Energy home page.

 [http://www.shinnikko-pr.co.jp/cp/purchase/pdf/torihiki\\_shiori.pdf](http://www.shinnikko-pr.co.jp/cp/purchase/pdf/torihiki_shiori.pdf)

## Database of Material Suppliers

Nippon Mining Procurement has a material suppliers database that it has business partners update regularly with the latest product information. Besides allowing for the sharing of purchasing information with business partners, it provides a way to further develop the win-win situation by expanding business opportunities.

 <http://kobai.wa-sabi.ne.jp/co/kobai/supplier/info.asp>

### Nippon Mining Procurement Purchasing Policies

#### Role

1. We will provide the group company of the Nippon Mining Holdings Group with the necessary materials and services in the most efficient and stable manner.
2. We will contribute to the competitiveness of the group company of the Nippon Mining Holdings Group by working with the company to reduce the cost of the materials to be purchased.
3. We will conduct business with high levels of precision, speed and transparency so that we can gain the trust and satisfaction of the group company of Nippon Mining Holdings Group.
4. We will share information with the companies of the Nippon Mining Holdings Group in order to make both parties aware of the progress and results of the purchasing process and thus strengthen the purchasing functions of the Nippon Mining Holdings Group.
5. We will make purchasing information available to business partners so that we can offer the maximum number of business opportunities.

#### Course of Action for Purchasing Deals

1. Transparency: Purchasing deals will be carried out in an open manner from start to finish.
2. Fairness: Selection of suppliers will be carried out based on fair evaluations.
3. Rigorous legal compliance: During purchasing deals, we will comply with all related regulations, and will not only observe the individual clauses of each law, but will also adhere to the spirit of the law.
4. Environmental protection: We regard the environment as the most important thing, and endeavor to "purchase green."
5. Mutual trust: We will build relationships of trust with our suppliers, based on equal partnerships.
6. Ethics: The person in charge of purchasing will keep fair relationships with business partners based on a rigorous ethical viewpoint.

#### Our Promise to Business Partners (Fundamental Rules for Purchasing Deals)

1. Fair entry opportunities: We will provide companies that wish to trade with us fair opportunity to do so, and will respond to any proposals earnestly.
2. Fair evaluation: Selection of suppliers will be conducted based on a fair evaluation of product quality, price, delivery schedules, performance and other factors.
3. Clear specification of purchasing procedures: We clearly publicize the Course of Action for Purchasing Deals, the Fundamental Rules for Purchasing Deals, registration procedures for new suppliers, various procedures from ordering through payment, and the contact details for the person in charge as well.
4. Management of confidential information: We will strictly manage information received in the course of purchasing operations and ensure maintenance of confidentiality.
5. Disclosure of the reasons behind selections: Where suppliers are not selected in tenders or competitive bids, we will clearly inform them, if requested, of the facts and reasons behind our decision.

Note: See page 29 for details of Green Procurement.

# With Employees

Japan Energy strives to build a workplace where each employee can use his or her abilities to the fullest. Our human resource system evaluates employees openly and fairly and respects their motivation.

## Fundamental Human Resource Policies

- Japan Energy has four fundamental human resource policies.
- (1) Place people in jobs or job rotations based on their specific skills and to develop their abilities.
  - (2) Evaluate and reward employees based on their performance in an open, fair manner.
  - (3) Establish labor conditions commensurate with the company's capacities and have prompt, systematic response to social needs.
  - (4) Offer sufficient opportunities for employees to develop their skills through education.

## Open, Fair System of Evaluation

In 1999, Japan Energy established an open, fair competency-based system of evaluation. This system is made up of action standards (competency model) established for each job description and annual work achievement targets, both of which are used as a basis for regularly evaluating the progress and achievement of employees.

In this system, employees and their superiors hold frank discussions at the beginning and end of the fiscal year. This offers a fair process in which both sides can agree on issues and also provides the basis for revising employee work targets and pursuing the necessary training to develop their skills.

## Job Placement and Human Resource Training that Respects Employee Motivation

Under Japan Energy's self-declaration system, once a year employees contact our General Administration & Human Resources Department and voice their opinions on their particular skills and future career goals, as well as make requests regarding where they want to work or other personal wishes. Based on employees' suitability or skills for particular jobs, and with consideration for their intentions and desires, we place them in jobs or on career paths that they find rewarding and that make the most of their strengths.

## A Workplace that Empowers Women

In July 2005, we began getting a consensus among department heads at headquarters and holding hearings for female employees in order to better understand how to create a corporate culture and systems conducive to boosting women's participation in Japan Energy. Our goal is to create a workplace in which women can do their jobs unconstrained and have access to a wider range of job opportunities.

## Sexual Harassment

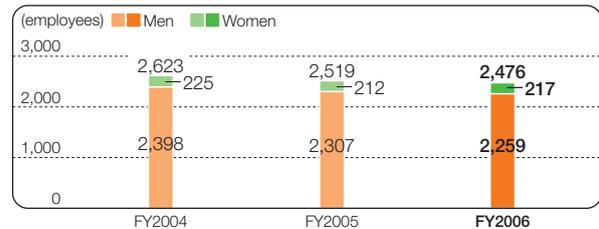
Sexual harassment is a socially unacceptable act. Our measures to deal with this serious issue include leaflets on the sexual harassment and councilors that give advice to and hear complaints

from employees. The company has strict policies and measures for dealing with offenders, and these are written in the company rules. Management also inform and educate employees on these matters.

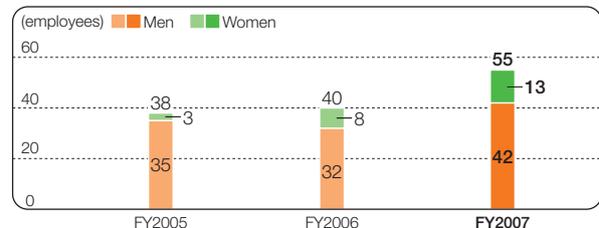
## Re-Employment of Retired Workers

With the start of the Law Concerning Stabilization of Employment of Older Persons, in FY2006 Japan Energy introduced a system for re-employing retired workers. All employees retiring at age 60 who wish to be rehired are eligible for this system. This system allows employees 60 and older to use the experience and knowledge they have built up over the years and pass on their valuable skills to the next generation of Japan Energy. In FY2006, seven of the 12 employees who reached the retirement age were re-employed.

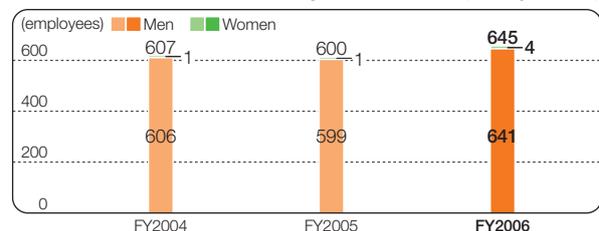
Number of Employees (fiscal year end)



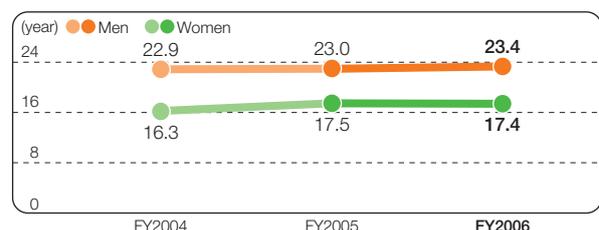
New University Graduates Hired



Ratio of Men and Women in Management Positions (fiscal year end)



Average Number of Continuous Years Worked (fiscal year end)



## With Employees

### Employment of the Disabled

As of March 31, 2007, Japan Energy had 29 employees with disabilities (representing 1.82% of all employees) and we will strive to increase this number with the aim of staying above the legal limit (1.8% of all employees). To this end, we are working to create a workplace conducive to making the most of disabled employees' talents and increasing the number of jobs open to the disabled.

### Education for All Employees

Japan Energy believes that people are a company's greatest resource. That's why we encourage directors and employees to further their abilities through training programs.

It is with this belief that we established the Nippon Mining Management College to foster the next generation of Nippon Mining Holdings Group leaders. With the aim of grooming Japan Energy's business leaders, we offer a full range of courses for employees selected from all management levels, from department managers to executives.

In the area of skill development, we have group education for all levels, from new employees to executives. In addition, employees can join our range of other programs: the open college, available to anyone with a desire to better themselves in a number of skill areas; correspondence education, which covers foreign languages, certification programs and practical courses; and study abroad programs that send employees to business schools overseas with the aim of molding internationally minded managers.

As well, education about our corporate principles and CSR activities is a required part of training programs for each employee level.

### Initiatives to Support the Next Generation

The Law to Promote Measures to Support Fostering Next-Generation Youths requires companies to establish ways to help employees balance work and childcare. In response to this, Japan Energy created a two-year action plan in April 2005 and achieved its targets as of April 2007. This allowed us to have the plan certified\* by the head of the Tokyo Labour Bureau. We established another two-year plan starting in April 2007.

\* **Certification system:** Companies that carry out consistent action plans and that meet certain legal standards are certified by the head of the Labour Bureau of the prefecture in which they are based. This certification gives companies the right to use a next-generation certification logo on their products.



### Childcare Leave and Nursing Care Leave Systems for Employees

Japan Energy has for some time now had childcare leave and nursing care leave systems in compliance with Japanese laws. But with the enactment of the Law to Promote Measures to Support Fostering Next-Generation Youths in April 2005, we have revised our childcare leave systems so as to allow employees to find a balance between work and childcare and to make it easier for women to continue working after having children. In FY2006, 15 employees (including 2 men) used their childcare leave and no employees used nursing care leave.

#### Outline of Main Childcare Leave and Nursing Care Leave Systems

##### Childcare

###### (1) Childcare leave

Leave can be taken for a period either until the child becomes 1 year and 6 months old or until the first fiscal year end after the child becomes 1 year old, whichever is longer. (From October 2007, this is scheduled to be extended for a period until the child is 2 years old). As a rule, this leave is unpaid, except for a maximum of 5 days from the start of leave.

###### (2) Shortening of work hours

Employees can shorten working hours for a period until the child starts elementary school. (From October 2007, this is scheduled to be extended for a period until the child starts fourth year elementary school). A workday can be shortened by up to 2 hours.

###### (3) Child nursing care

Employees can take up to 5 days leave a year until the child enters junior high school.

###### (4) Reserve leave for child nursing care (scheduled to start in October 2007)

Employees can take up to 5 days leave a year until the child enters junior high school.

##### Nursing care

###### (1) Nursing care leave

Employees can take up to 365 days leave per family member.

###### (2) Shortening of work hours

Up to 365 days per family member. A workday can be shortened by up to 2 hours.

###### (3) Reserve leave\* For nursing care

Up to 30 days.

\* **Reserve leave:** Annual paid leave that was not taken and has expired can be saved up and used for a special purpose.

## Employees Who have Taken Childcare Leave and Nursing Care Leave

### The Value of Childcare Leave for Fathers



**Yasuhiro Yoshida**  
Toda Administration Office

In September 2006, I took five days of childcare leave for the sake of my second son, who was born in July 2006. This gave me a chance to think about the significance of fathers participating in childcare.

Of course it helped take some of the physical burden off my wife.

But more than that, I think it was important to empower my wife with the knowledge that she is not alone in raising our children.

### I Used the Shorter Work Hours System After Returning to Work



**Atsuko Miura**  
General Affairs Manager,  
General Administration &  
Human Resources Dept

I used the childcare leave system until my child was 1 year and 4 months old. After returning to work, my child was in a daycare that closed early, so I was worried about being able to leave work early enough to get to the daycare. Luckily, I could take advantage of the shorter work hours system to leave the office early. Thanks to the

help of my co-workers and our company's support systems, I am now a working mother who picks up my child everyday.

employees with health concerns in physical check-ups, and ensured that all employees were getting their proper amount of working hours.

### Proper Management of Working Hours

Japan Energy constantly and properly manages working hours. We inspect our system of operations to ensure all employees are in good health, both labor and management thoroughly monitor the state of things like employee working hours and amount of paid leave taken, and offer a flex time system.

### Safety Awareness at All Sites

At each Japan Energy site, the general manager personally tours the site, looking for improvements that can be made and instructing managers on ways to prevent labor accidents.

Each worksite also conducts numerous safety activities. These include near-miss awareness, in which workers report things they are worried about or near-miss accidents; and illustrated lesson sheets, which are diagrams of a worksite that workers study to try and find potential points of danger.

As well, sites that have experienced labor accidents are required to make certain plans: accident surveys, accident cause analysis sheets, and plans to prevent accident reoccurrence. The table below shows the number of accidents at Japan Energy (including Kashima Oil Co., Ltd.), both those that resulted in lost work time and those that did not, over the past five years.

Number of Labor Accidents

	FY2002	FY2003	FY2004	FY2005	FY2006
Resulting in lost work time	0	0	1	2	0
Not resulting in lost work time	6	2	3	3	3

## Smooth Labor-Management Relations Based on a Spirit of Mutual Dependence and Mutual Trust

Under the union shop system, Japan Energy has an agreement with the Japan Energy Labor Union (1,808 members as of March 31, 2007) based on a spirit of mutual dependence and mutual trust. In the spirit of this agreement, the company strives to improve the working conditions of union members and the union works with management in solving problems related to running the company. Such smooth labor-business relations form the foundation of the company's growth.

## Occupational Health and Safety Efforts

In the area of occupational health and safety, based on the safety and health management policy announced every fiscal year by the president, Japan Energy carries out thorough efforts at all sites and branches. In FY2006, besides emphasizing the prevention of accidents caused by human error, each site offered support, such as through company doctors, to

### Health, Labour and Welfare Minister's Commendation, Encouragement Prize Recognizes Japan Energy's Outstanding Safety and Health

Japan Energy's R&D Center was commended by Japan's Health, Labour and Welfare Ministry for outstanding achievements in the field of safety and health. This award is in recognition of the R&D Center's record of outstanding safety achievements based on approximately 25 years without an accident or calamity.

## Helping Employees Stay Healthy

The Health Insurance Union of Nippon Mining Group has a call center where employees can consult on matters of health and medical care. Open 24 hours a day, 365 days a year, the call center responds to concerns on mental and physical health and provides information on medical institutions and nursing care.

# Together with the Community

Based on our Mission of aiming “for a more cohesive and dynamic society,” we contribute to society through the promotion of sports and culture and through support for Japan Energy employees’ volunteer activities.

## Social Contribution Priorities and Support Focus

In order to make the most of our social contribution efforts, we have established priority areas of contribution and have clarified the focus of our support.

### Priority Areas

- 1 JOMO Children’s Story Award, JOMO Children’s Story Fund
- 2 Promotion of Sports
- 3 Disaster Assistance

### Support Focus

- 1 Children
- 2 The disabled

In FY2006, based on these priority areas and focus of support, we continued and boosted a number of activities we have been conducting for some time now.

### 37th JOMO Children’s Story Award

Every year since 1976 we have been accepting children’s stories from the general public, with the best works awarded and published in the Bouquet of Children’s Stories.

For the 37th JOMO Children’s Story Award in FY2006, we received 8,067 entries in the general division (junior high school students and older) and 804 entries in the children’s division (elementary school children and younger), for a total of 8,871.

Of these entries, 33 outstanding examples were awarded, and the 18 honorable mention stories were printed along with illustrations in the 37th edition of the Bouquet of Children’s Stories. All entries received a copy of the book, and copies were also given to children’s and mothers and children’s facilities around Japan.



The JOMO Children’s Story Award presentation ceremony



The Bouquet of Children’s Stories

### The JOMO Children’s Story Fund and JOMO Scholarship Grants

In 1994, Japan Energy, the Nationwide JOMO Association, and Nationwide JOMO LP Gas Association, the sales networks handling JOMO brand products, jointly established the JOMO Children’s Story Fund with the objective of using the Bouquet of Children’s Stories for worthy social causes. Dealerships, affiliates, and Japan Energy Group employees purchase the Bouquet of Children’s Stories and the proceeds are used for children under children’s homes, mothers and children’s homes and foster homes around country.

In FY2006, we donated 24 million yen from the proceeds

of book sales to the Japan National Council of social Welfare, which provided scholarships to 212 former residents of children’s homes and mothers’ and children’s homes, as well as to residents of foster homes, when they enter university, college, or trade schools.

Support for foster homes is at the request of the National Foster Parent Association of Japan, and Japan Energy will offer its support under a three-year trial.

### JOMO Basketball Clinic throughout Japan

Begun in 1995 to promote basketball and exchange between Japan Energy and local communities, the JOMO Basketball Clinic features players and coaches and current and former players from Japan’s top women’s basketball team, the JOMO Sunflowers, touring the country to teach mainly elementary and junior high school students basic basketball skills. In FY2005, the tenth year of the program, we formed a full-time team consisting of former players and increased both the frequency of sessions and the amount of material and courses to be chose. Selected teams receive special reinforcement courses covering a number of sessions, and one-day courses give everyone from children to adults the chance to master basic basketball techniques while having fun. While sessions used to be held four times a year, this was dramatically increased starting in FY2005, and in FY2006 we held 57 sessions attended by a total of 2,161 participants. And we gave children a dream to shoot for with special sessions led by Yuta Tabuse (formerly of the Phoenix Suns), the first Japanese ever to play in the NBA. 2006 sessions were held in Tokyo and Hokkaido in May.

In March 2007, the JOMO Sunflowers won the 8th W-League basketball championship, their first title in three years and their 11th in the team’s history (including championships in the former Japan Basketball League).

 [http://www.j-energy.co.jp/jomo\\_clinic/](http://www.j-energy.co.jp/jomo_clinic/)



Full-time staff teach skills



### JOMO Dream Challenge Project, Jr. NBA Japan Team

With the joint sponsorship of NBA Japan, Japan Energy held the JOMO Dream Challenge Project, Jr. NBA Japan Team. Jr. NBA is a social contribution program held as part of NBA activities starting in 2001, through which children are taught basic basketball skills as well as social skills like teamwork and sportsmanship.

In August 2006, out of junior high schoolboy applicants from around Japan, 12 were selected in two rounds to form a Japan team. JOMO offered comprehensive support in the form of full-time coaches from the JOMO clinic to lead basketball camps and a tour of the US. In January 2007, a team of 12 first and second year junior high school students went to the US to play against teams from New York and New Jersey. Although Japan lost both games, the team members had an experience they will never forget.



Playing against the US team

### Supporting Sports for the Disabled

Japan Energy added the Click Donation section to its Web site in support of sports activities for the disabled.

Each time a visitor to the Web site clicks the icon, Japan Energy donates an equivalent amount to sports organizations for the disabled (limit of one click per person per day).

In FY2006, Japan Energy donated to the Special Olympics, international organization providing sports training and athletic competition to people with intellectual disabilities by click donation system.

We also support the Japan Wheelchair Basketball Federation (JWBF) championships (April) and the Sports Federation for Persons with an Intellectual Disability (INASPID) Basketball World Championships (October). JOMO volunteers also helped out at wheelchair basketball tournaments in April and December.

Tabuse (formerly of the Phoenix Suns), the first Japanese ever to play in the NBA. 2006 sessions were held in Tokyo and Hokkaido in May.

In March 2007, the JOMO Sunflowers won the 8th W-League basketball championship, their first title in three years and their 11th in the team's history (including championships in the former Japan Basketball League).



Click Donation Web site

 [http://www.j-energy.co.jp/cp/iety/click\\_tp.php](http://www.j-energy.co.jp/cp/iety/click_tp.php)

### Click Donation Destinations

Organization	Period	Amount donated
Special Olympics Nippon	March 20, 2006 – November 5, 2006	3,741,508 yen (For operational costs for national summer games)
	November 6, 2006 – March 31, 2007	2,180,999 yen (Support funds for the Japan team at the 2007 Special Olympics World Summer Games in Shanghai)

### Disaster Assistance

Japan Energy executives and employees joined in a donation campaign to raise funds for victims of the huge earthquake occurred May 2006 in central Java.

In this donation program, Japan Energy matches the amount donated by executives and employees. We donated a total of 1,070,592 yen (535,296 yen from the employees and the same amount from the company) to the NPO Japan Platform, which use this money to help those suffering people in Java.

In April 2006, we established the JOMO Fureai Fund, in which a fixed amount of the salary of executives and employees is set aside in a savings account to be used to help future victims of disasters. As of the end of March 2007, 582 had joined in this fund, with a total of 946,100 yen saved.

After an earthquake in March 2007 on Japan's Noto Peninsula, the money from the Fureai Fund was put to use for the first time to help the victims. 500,000 yen was used from the fund, with Japan Energy matching this amount, for a total of 1,000,000 yen. In April, we donated this to the Central Community Chest of Japan to support its disaster volunteers program.

### Cleanup Activities

Japan Energy has for years now been holding community cleanup activities at its sites.

In FY2006, approximately 800 employees took part in cleaning activities held at the Mizushima Oil Refinery, Chita Oil refinery, Funakawa Works, Sodegaura Lubricants Plant, Kawasaki LP Gas Terminal, R&D Center, Hokkaido Branch and Kashima Oil refinery (Kashima Oil Co., Ltd.).



Local cleanup by R&D Center employees and their families

### Participation in Local Disaster Prevention Activities

To ensure safety in local communities, Japan Energy refineries and plants cooperate with neighboring companies and local governments in disaster prevention activities.

In FY2006, the R&D Center joined in the emergency disaster drill jointly held by Warabi police department and the Toda fire department at the center.

## Together with the Community

### Science Classes and the JOMO Planet School

We've been holding science classes at the R&D Center for sixth grade students from the nearby Toda Municipal Niizo Elementary School since 2004. In September 2006 we held the third class for 88 students on the three themes of next-generation energy and reducing environmental burden, environment protection concerning engines, and technology for seeing the unseen. In January 2007, on a request from the Toda City Education Committee, we sent four researchers from the R&D Center to teach at the committee-held JOMO I Love Science Classes (held at Toda Municipal Miyamoto Elementary School for 68 fifth grade students). On the theme of the color related to petroleum, we introduced the students to familiar petroleum products and our environmental protection efforts.

And with the goal of stimulating children's interest in natural sciences through observation of the night sky, we hold the JOMO Planet School. Held in September 2006 and March 2007, the two sessions were attended by a total of 120, including children and their parents from Niizo Elementary School, Japan Energy employees and their families.



I Love Science Classes

### Participation in Minato-Net

Japan Energy is part of a social contribution network of companies and organizations, called Minato-Net, in Minato Ward, Tokyo.

Representatives work together on events and information exchanges that enrich the community and strengthen ties among their organizations.

In May 2006 in Shiba Park, Minato-Net held its 19th event, which aimed to get participants to appreciate the nature of Tokyo's Minato Ward. A total of 150 participated, including residents and people working in Minato, as well as six employees and family members from Nippon Mining Holdings Group.

### Participation in minato eco-conscious consortium

In May 2006, Japan Energy took part in the Minato eco-conscious consortium (mecc). The event was an experiment in which businesses, residents, and the government of Minato Ward work together on environmental problems and create a "Minato model" as an example for the rest of Japan.

In November 2006, mecc held the Companies and the Environment Expo, at which Japan Energy had a booth introducing its environmental activities. As well, our employees gave talks on our CSR activities.

### Opening Japan Energy Facilities to the Public

Japan Energy's headquarters has since 1989 lent its gymnasium to local kendo groups for practice.

Other Japan Energy sites, such as refineries and the R&D Center, also open sports facilities such as tennis courts, Japanese archery fields and kendo training rooms to the general public.

### Supporting Employee Volunteer Activities

We aim to make Japan Energy executives and employees vital members of local communities who can help drive the creation of new dynamism and energy in society. To this end, we encourage employees to volunteer by offering systems to support volunteering, providing information on volunteering and running our own volunteer programs.

### Volunteer Leave Systems

In April 1996, Japan Energy established an international volunteer leave system. With the aim of supporting employees who want to participate in volunteer activities run by international organizations, the Japanese government, or other groups, employees can take between six months and two years off, and receive the equivalent of 70% of their salary as aid money. So far, no employees have taken advantage of this system.

As well, in April 2002, we introduced a volunteer time-off system under which employees can use up to three days a year of accumulated paid leave (see page 41) for volunteer activities. In FY2006, 16 employees took a total of 20 days time off, including to work in forest preservation work.

### JOMO Volunteer Network

We established the JOMO Volunteer Network in June 2004 to further participation in volunteer activities. Employees enthusiastic about volunteering become members of the network and spur volunteering in their workplace. There is also a home page for employees with information on volunteer opportunities inside and outside the company as well as features on employee volunteer activities. The Network serves to invigorate and widen JOMO volunteer activities.

### Second-Hand Book Fair Charity 2006: "Summer Second-Hand Book Caravan"

In August 2006, Japan Energy, Key Coffee, Inc., Kikkoman Corporation, Japan Tobacco Inc. and Hitachi High-Technologies Corporation held a charity concert and second-hand book fair. The proceeds went to the non-profit organization Child Fund Japan for its children's education support activities in the Philippines and were enough for five companies to support one child each for two years of schooling. In 2003, Japan Energy

held its first second-hand book fair as an easy way for employees to get into volunteering. This was followed by an art exhibit and concert together with member companies of Minato-Net. This led to the event in its current form.



Japan Energy employees take part in the charity second-hand book fair

### Charity English Conversation Class

Japan Energy holds English conversation class jointly with NGO Minsai Center Japan that help children in Thailand, Laos, and Cambodia enter school. Japan Energy employees and their families take an English class taught by an American teacher and the lesson fees go to Minsai Center Japan, an NGO dedicated to helping the less fortunate in other countries get an education. In January 2001, charity English conversation class were held for the children of R&D Center employees, with the proceeds enough to send one junior high school student in Thailand to school for one year.



Learning English through games

### Support for Guide Dog Training

Since the autumn of 2003, Japan Energy employees have been working as volunteers to clean up the Tochigi Guide Dog Center. In FY2006, a total of 55 employees participated in the usual two cleanups in April and November.

There are also donation boxes inside our office in support of dog training activities at the Guide Dog Center. As well, JOMO-Net Kita-Kanto Co., Ltd. has donation boxes at its JOMO service stations in Tochigi Prefecture.

These activities yielded a total of 192,275 yen worth of donations in FY2006. And five employees from Japan Energy's Hokkaido Branch volunteered at an event in April 2006 held by the Hokkaido Guide Dog Association.



Cleanup at the Tochigi Guide Dog Center

### In-House Blood Donor Clinics

Once or twice a year, we support blood donation by our employees at headquarters and other sites. These provide the Red Cross with safe blood and give employees the chance to do a good deed. In FY2006, approximately 500 employees donated at six sites.

### Walk the World

Japan Energy takes part as a councilor in activities of the Japan Association for the United Nations World Food Programme (WFP). We co-sponsored Walk the World, a charity event put on by the WFP in May 2006, with Japan Energy and family members (total of five persons) taking part. This event was held simultaneously around the world with more than 700,000 participants, with proceeds going to a school lunch program to provide opportunities for needy children to go to school.



The event was held simultaneously around the world

### Collecting Items to Donate

In 1997, we began social contribution activities that anyone could easily participate in; namely, the collection of items such as used stamps and telephone cards to be given to NGOs. From January to May 2006, we collected erroneous postcards and unused stamps and donated them to the non-profit organization Hunger-Free World, a group working to alleviate world hunger. In March 2007, we collected unused telephone cards and other items for donation to the Darunee Scholarship Fund project run by the NGO Minsai Center Japan. Through this, we were able to provide student grants to three Laotian elementary school students and one Cambodian student.

As well, Japan Energy and four other companies participating in Minato-Net collect PET bottle caps (polypropylene) and sell them to a recycling company, with the proceeds going to the NGO Japan Committee for Vaccine for the World's Children. In FY2006, five companies collected a total of 860 kg, resulted in 902 yen of donation. Although it seems like a small amount, it is enough to provide polio vaccine for 45 children.



Collecting stamps and cards for donation to NGOs

# Fostering the Next Generation and Protecting the Environment

Through long-running voluntary programs like the JOMO Children's Story Award and the JOMO Basketball Clinic, employee volunteers join with local communities in environmental and other social contribution activities.

The JOMO Children's Story Award: Fostering the Next Generation and Protecting the Environment



## Through the Bouquet of Children's Stories, Japan Energy Contributes to Environmental Protection and the Betterment of Communities

To realize our Mission of "We Create Energy," we do all we can to contribute to society. Efforts to this end include long-running voluntary programs like the JOMO Children's Story Award and the JOMO Basketball Clinic, in which we work with dealerships and local citizens in ever-widening social contribution activities.

In 1992, together with our dealerships we established the JOMO Children's Story Fund (at that time called the Kyoseki Bouquet of Children's Stories Fund). The aim was to make the Bouquet of Children's Stories effort benefit society.

Dealerships, Nippon Mining Holdings Group companies and Japan Energy employees purchase the Bouquet of Children's Stories and give them to customers and children in the community. Money from sales of the book goes into the JOMO Children's Story Fund, which goes to the Japan National Council of Social Welfare.

To make the 280,000 copies of the Bouquet of Children's Stories that we publish every year requires more than 70 tons of paper. So, we introduced the 3.9 Paper system, under which we work with Hara Village in Nagano Prefecture in an initiative called the Adopt-a-Forest Operation to make effective use of wood from thinning forests while helping preserve forests. In this way, the JOMO Children's Story Award helps create a circle of community contribution and environmental preservation that meets the needs of today's society.

## Our Expectation

### Helping Today's Children – Tomorrow's Leaders – Achieve Their Dreams

Mr. Masaru Sasao, General Manager of Child Welfare Dept., Japan National Council of Social Welfare

The Japan National Council of Social Welfare receives donations from the JOMO Children's Story Fund, which we use to provide scholarships under the JOMO Scholarship Grants. 2007 was the 15<sup>th</sup> consecutive year we received donations from the JOMO Children's Story Fund, which we used to help many children achieve their dreams through donations to children's homes and homes for single mothers. The JOMO Scholarship Grants are now in its fourth year, and we use this to support the children who need it. I hope that Japan Energy continues and expands its social welfare efforts.



### JOMO Children's Story Fund: Putting the Bouquet of Children's Stories to Work in the Community

Dealerships, Nippon Mining Holdings Group companies, and Japan Energy employees purchase the Bouquet of Children's Stories, with proceeds going to the JOMO Children's Story Fund, which we donate to the Japan National Council of Social Welfare every year in November at the JOMO Children's Story Award presentation ceremony.

Through the Japan National Council of Social Welfare, donations go to children at children's home and single mothers' homes around Japan as scholarships to help them attend school and start the road to independence. Who will receive donations each year is decided by a committee made up of members from Japan Energy, the Japan National Council of Social Welfare, the Zenkoku Jido Yogo Shisetsu Kyogikai, the Zenkoku Boshi Seikatsu Sien Shisetsu Kyogikai and the National Foster Parent Association of Japan.

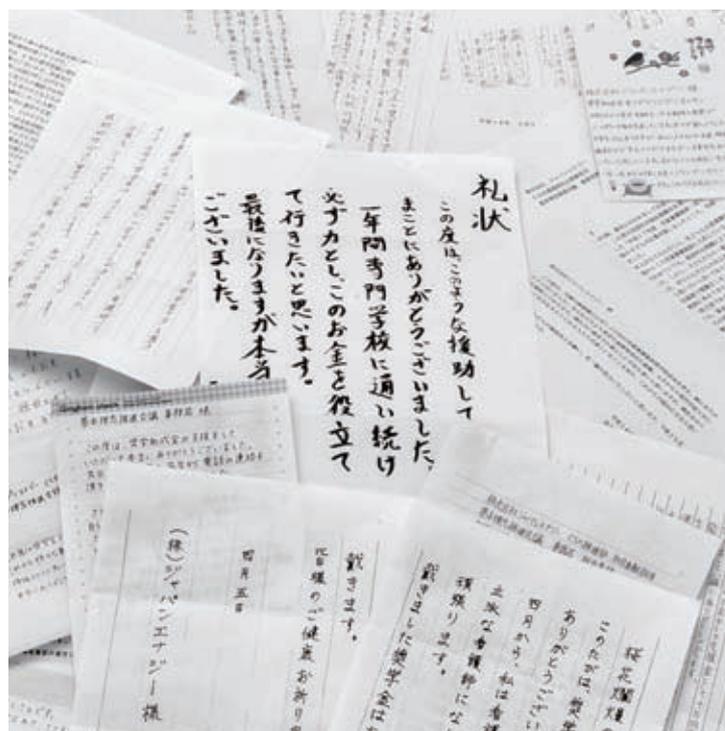


JOMO Scholarship Committee

Scholarship recipients have a variety of future dreams and the support from the JOMO Children's Story Fund puts them on the road to achieving these dreams. Japan Energy will continue to support future generations through the JOMO Children's Story Award and the JOMO Children's Story Fund.



Pamphlet explaining the scholarship fund



### With 3.9 Paper System, We Make Use of Wood from Thinning of Forests

Many forests in Japan suffer from lack of funding and lack of manpower to preserve. Selling the wood from thinning of forests could be used to fund forest preservation, but because it costs money to transport this wood, it's difficult to get it from the forests. But leaving forests would mean that thinning could not be carried out and forests would die, or even if thinning could be carried out, the thinned wood has to be left in the forest and the forest would deteriorate. Through our forest preservation activities, we saw an opportunity to correct this situation: that's why we joined the 3.9 Paper initiative,



Thinning wood from forests is used to make paper

which supports forest preservation activities. Not only does this protect the nearby forests; it helps them grow so that they can act as effective carbon sinks and prevent global warming.

### 3.9 Paper Used for the Bouquet of Children's Stories of the JOMO Children's Story Award

The Bouquet of Children's Stories, a collection of stories entered in the contest for the JOMO Children's Story Award, is distributed to customers via JOMO service stations and dealerships, as well as donated to local schools, nursery schools, kindergartens and other welfare facilities.

Since FY2005, we have used 3.9 Paper to print the Bouquet of Children's Stories. The 3.9 Paper project means that through our partnership with Hara Village, Nagano Prefecture in the Adopt-a-Forest Operation, we can make effective use of 80 tons of thinned wood a year, helping



The 36th edition of the Bouquet of Children's Stories was the first to use 3.9 Paper

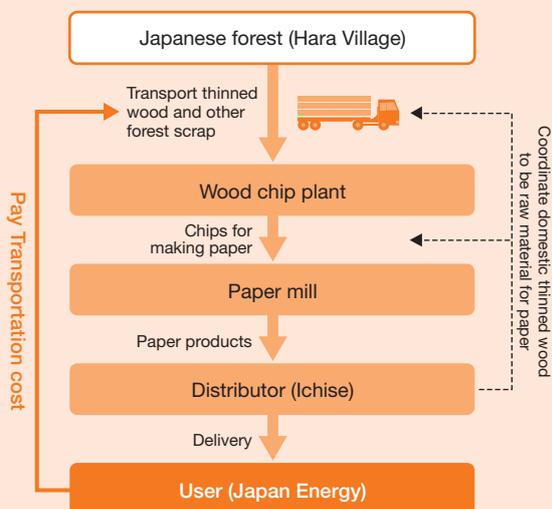
preserve forests and contributing to the absorption of CO<sub>2</sub>. The Bouquet of Children's Stories helps protect the environment while educating readers of this book about the importance of preserving our forests.

#### 3.9 Paper

A system for using wood from forest thinning as raw material for paper. If effective use can be made of this wood, this helps preserve forests. But the problem is that thinned wood only fetches a low price, so it is usually left in the forest, which hinders younger trees from growing. To solve this problem, Ichise Co., Ltd., a paper wholesaler, and Oji Paper Co., Ltd., developed the 3.9 Paper business model to make effective use of thinned wood and to protect forests. Because the user of the paper covers the cost of transporting the thinned wood, it is feasible to use domestic thinned wood as raw material for paper.



#### 3.9 Paper system



#### 5th Japan Sustainable Management Awards Environmental Value Creation Pearl Award

In March 2007, at the 5th Sustainable Management Awards, Japan Energy received the Environmental Value Creation Pearl Award.

These awards were started in 2002 by the Mie Prefectural government to recognize examples of superb environmental management among companies and organizations, with a committee of academic experts selecting the winners. The award comprises an sustainable management section and an environmental value creation section. In addition to environmental products, services, and business models, the latter recognizes contributions to the creation of new environmental value (social change and environmental culture) as a result of environmental protection efforts that lead to a movement towards lifestyle changes. This award recognizes the initiative to save Japan's forest through 3.9 Paper, proposed by Ichise, which uses thinned wood as raw material for paper. The award goes to four companies: Japan Energy and Zephyr Co., Ltd., which make use of the 3.9 Paper; and Ichise and Oji Paper, which take the wood chips from the thinned wood and make paper. Japan Energy will continue making use of 3.9 Paper in efforts to contribute to Japan's forests, important carbon sinks in the fight against global warming.



Environmental Value Creation Pearl Award

## Forest Volunteer Activities Started in 2004

Since 2004, Japan Energy volunteers have been working to protect forests. The first project was a red pine forest of the Nakajo Field of Japan Energy Development Co., Ltd. in Niigata Prefecture. In 2005, we took part in the Nagano Prefectural government's Adopt-a-Forest Operation. In this program, the Nagano government acts as matchmaker, bringing together private companies intent on protecting the environment and municipalities possessing forest land, to create a joint forest preservation effort among private enterprise, government, and local citizens. The "adopting parent," the private company, and the "adopted child," the municipality, sign an agreement, with the company providing funds for the preservation of forests, which act as carbon sinks, as well as volunteers. In April 2005, Japan Energy signed an agreement with Hara Village, making this the first Adopt-a-Forest effort in the Suwa region.

In 2006, we signed an agreement with a non-profit organization in Okayama Prefecture to protect the area's



JOMO volunteers and their families in Hara-mura JOMO

deteriorating forests.

In FY2006, a total of 440 people, including Japan Energy volunteers, took part in seven forest preservation sessions in these three areas.

See the Japan Energy home page for details of these activities.

 <http://www.j-energy.co.jp/cp/csr/>



Ayumi-no-Mori (Nagano Prefecture)



Takahashi JOMO Fureai-no-Mori (Okayama Prefecture)



Planting red pine seedlings in a nearby park

## Forest Preservation Begun on Site of Former Nippon Mining Holdings Group Mine

Japan Energy's connection with this forest goes back about 100 years to our company foundation. At the Hitachi mine (Ibaraki Prefecture), the original entity of Japan Energy, we constructed a giant smokestack to deal with the problem of smoke. We also planted 10 million trees such as cherry trees: this could be called the roots of our CSR activities. The Nippon Mining Holdings Group manages a number of closed mines around Japan. Because of the size of these lands, we have not been able to properly preserve all the forests. As part of the Nippon Mining Holdings Group, we are determined to return to nature these mines that blessed our ancestors with natural resources, so we have decided to begin revitalizing these forests. At the former Takatama mine in Koriyama City, Fukushima Prefecture, we began work in 2006 on preserving the forests (area: approximately 130 ha) together with the local foresters' union. We will spend the next several years preserving the forest through thinning and other activities.

In May 2007, in Hakodate City, Hokkaido Prefecture, at the site of the former Kameda mine (area: approx. 250 ha), we planted 7,500 seedlings of white oak and beech trees on 3 ha with the cooperation of the local foresters' union. In addition to a five-year forestation plan, we plan to continue forest preservation activities such as removing weeds.



The former Kameda mine



Tree planting with the local foresters' union

## Third Party Opinions

To make this CSR Report a more effective means of communicating our CSR activities, we asked two outside experts for their opinions.



### Mr. Nobuo Gohara

Professor, Toin University of Yokohama Law School  
Director, Compliance Research Center, Toin University of Yokohama

#### Personal history

Graduated from Department of Science, Tokyo University  
Appointed public prosecutor in 1983. After working at positions including public prosecutor for Investigation Dept., Secretariat of the Fair Trade Commission and public prosecutor, Tokyo District Public Prosecutor's Office (assistant manager of the Hachioji branch), in 2003 was appointed guest professor at Toin University of Yokohama Law School. In 2005, became a professor of law at Toin University of Yokohama Law School and Director, Compliance Research Center of Toin University of Yokohama. In 2006, left the prosecutor's office and became a full-time professor and research center head. Publications: "Legal Compliance Will Ruin Japan," published by Shincho Shinsho (2007) "Corporate Law and Compliance" (author and editor), published by Toyo Keizai Shinposha (2006)

Japan Energy's Mission of "WE CREATE ENERGY" and its "Five Pledges" towards this Mission represent a basic CSR policy rooted in the special characteristics of companies in the petroleum industry, and they also are the starting point for compliance from the viewpoint of meeting society's demands. It's unfortunate that this Mission and Five Pledges are hidden among the Top Message that covers two pages. I think that having the Mission at the very beginning, followed by the president's feelings on this, would have more of an impact for readers inside and outside of Japan Energy.

The section Responsibilities and Actions in the Supply Chain gives CSR to-do lists for each business group, as well as expectations from stakeholders and responses from Japan Energy managers. This makes this section rich in information. Reading the content, I was impressed at how each division puts the Mission and Five Pledges to work in their activities.

In Working for the Environment, Japan Energy introduces the many efforts it is undertaking in response to the most important CSR task of a petroleum company: environmental protection. However, I wish this section had touched on the subject of "peace of mind," an increasingly important issue of today's corporate society. It's not only a matter of environmental pollution levels and whether these harm people's health: what the public wants is for companies to carry out thorough environmental management and accurately record pollution data. An indication of this is the public's criticism of the recent spate of cases in which large companies alter or cover up data. That is why companies must have ways to guarantee the appropriateness of their environmental management. In this respect, I wish that Japan Energy had referred to the Environmental Management Guidelines on Preventing Pollution for Businesses, which was published by the Ministry of Economy, Trade and Industry and the Ministry of the Environment in March 2007.

I also think that to further expand CSR activities, it is necessary to show the relation between the Nippon Mining Holdings Group's overall CSR activities and the Japan Energy Group's CSR activities. I was interested in the forest preservation activities at former mines, but I would like to see what other Nippon Mining Holdings Group companies are doing as well as an overall picture that includes things like how these activities are being coordinated.

I hope to see Japan Energy vastly expand the CSR activities that it has carried out over the past 10 years under the Mission of "WE CREATE ENERGY."



### Ms. Yoko Takahashi

Chief Director of the Japan Philanthropic Association

#### Personal history

After graduating from Tsuda College, worked as a high school teacher. After being certified as a counselor at Sophia University, worked as a counselor at Kanto Gakuin Junior and Senior High School. Joined Japan Philanthropic Association in 1991, where she worked as secretary-general and managing director before assuming her present position as chief director in June 2001. Has a wide range of contacts in government, industry and non-profit organizations, and working with them, she supports both companies and individuals to be involved in philanthropic activities.

Compared to last year, it appears Japan Energy put more steadfast effort into showing us the people involved and letting us hear what they have to say.

However, the report merely gives the current situation. Rather than simply a report of activities, I think that it would be a richer CSR report if it included targets and commitments for next year.

On the environmental side, the report clearly shows the efforts of Japan Energy. For CO<sub>2</sub> emission, while many companies simply give unit energy consumption, Japan Energy gains trust points by giving total emissions. The reduction of CO<sub>2</sub> emissions to prevent global warming is an urgent and serious task, one in which everyone, including all stakeholders, must take part. Accordingly, Japan Energy should choose technical words that everyone, not just specialists in the field, can understand, since spreading awareness means giving everyone a chance to understand.

In the "With Customers" section, I think Japan Energy should tell us exactly how they deal with and use customer complaints within the company, since this is vital to gain our trust. In the "With Employees" section, in addition to figures on numbers of female managers, having details of efforts like mentor programs would allow to see where the company is heading in the area of empowering female employees. With mental health becoming a major social issue and companies pressed to take appropriate measures to deal with this, it is unfortunate that Japan Energy did not touch on this topic. If the company has no definite programs in this area, it should assess the situation and quickly take the appropriate measures.

In the area of social contribution, the JOMO Children's Story Award is highly significant. Not only does it contribute to society but it is a source of pride for employees. This could also lead to a number of other activities. However, it's hard to understand Japan Energy's overall system of social contribution, and the individual activities are lacking in variety overall. Maybe changing the layout of presentation would help.

In future reports, I would like to see more about activities at service stations. From the view of customers, the service station is where they come in contact with JOMO. By giving examples of outstanding service stations as a means of communicating with customers, Japan Energy can show its stakeholders how valuable a partner they are. I hope that Japan Energy offers a greater depth of information in order to create a report that shows the public what the company is all about.

## Explanation of Terms

Terms, abbreviations	Explanations
Aroma	Short for aromatic compound. The major aromatics include benzene, toluene, and xylene.
Sound detection system	A system that uses sound to detect hydrogen leaks. Leaks are detected by analyzing sounds picked up by a microphone.
Activated sludge method	Activated sludge, made up mainly of bacteria, protozoa and metazoan, works to purify wastewater through the break-down, aggregation, absorption and deposition of the organic substances in wastewater.
Activated charcoal absorption tank	An advanced treatment method that uses activated charcoal to remove substances such as soluble organic substances, COD, chromaticity, surfactants and offensive odor components. It is used following biochemical treatment or when reusing secondary effluent.
Environmental impact	The degree of influence on the environment.
Guard basin	An impounding basin at the final stage of a wastewater treatment system, it functions to separate minute amounts of oil and to temporarily store water in the case of a problem with the upstream wastewater treatment facilities. The guard basin has an oil detection device at its mouth, so if wastewater containing oil enters, it is detected and the cutoff valve closes. This prevents wastewater containing oil from being discharged to outside of the site.
Carbon neutral	Plants take in CO <sub>2</sub> through the process of photosynthesis. This means that the CO <sub>2</sub> emitted into the atmosphere by the burning of plant-based fuels was CO <sub>2</sub> that was originally in the atmosphere before being absorbed by plants through photosynthesis. It is considered that there is no net emission of CO <sub>2</sub> into the atmosphere.
Xylene	An aromatic hydrocarbon, it has two methyl groups (CH <sub>3</sub> ) substituted in place of two hydrogen atoms in benzene. These are three isomers of xylene: ortho, meta and para. Xylene is an oily liquid that is colorless, transparent, toxic and flammable. It is obtained from petroleum reformat and is the raw material for organic solvent and synthetic resin.
kPa	A pascal (PA) is an international system of units (SI) representing pressure. One pascal is equal to one Newton per square meter. The unit for air pressure is kilo pascal (kPa). (Kilo=1,000)
Photochemical smog	The nitrogen oxide and hydrocarbons in car exhaust undergo chemical change when they react with the ultraviolet rays from the sun in the atmosphere, thus producing photochemical smog. Oxidants are air pollutants and one of the main components of photochemical smog.
Sulfur-free	Reducing the sulfur content in gasoline and gas oil to 10 ppm or less.
Catalysts	A substance that remains unchanged itself but alters the speed of chemical reactions of other substances. An example is the desulfurization of heavy fuel oil, which commonly uses the hydrodesulfurization method. High-temperature, high-pressure heavy fuel oil is injected with hydrogen, subjecting it to solid catalysts inside the reaction chamber. A hydrocracking reaction of the sulfur compounds results in the sulfur being removed as hydrogen sulfide. Catalysts have a life span and are replaced when they lose their ability to alter the speed of chemical reactions.
COD contamination	An index for water pollution, COD (Chemical oxygen demand) is a measure of the oxidant required to degrade organic compounds in water. It is a major index for measuring pollution by organic compounds in sea water and lake water.
Sludge	As oil deteriorates, it reacts with dissolved oxygen, resulting in a polycondensation product called sludge.
Biodegradable	Organic substances are broken down by microorganisms into water and CO <sub>2</sub> .
Denitration	The process and technology for removing nitrogen oxide from exhaust. The most common method of denitration is the ammonia catalytic reduction method in which ammonia is used as a reductant.
Desulfurization	Reducing the sulfur content of petroleum stock by causing a reaction between the sulfur and hydrogen, thus removing the sulfur in the form of hydrogen sulfide.
Hydrocarbon vapor recovery unit	Equipment for removing the hydrocarbons in the hydrocarbon vapor that is emitted when petroleum products are filled into or discharged from tank trucks. An absorbing solution such as kerosene is brought into contact with the vapor, thus absorbing and removing it. This equipment prevents the dispersion of hydrocarbon vapor into the air.
Toluene	An aromatic hydrocarbon, it has a methyl group (CH <sub>3</sub> ) substituted in place of one hydrogen atom in benzene. It is a colorless, flammable liquid with a distinct odor. It is obtained from distillation of coal tar and the breakdown and reforming of petroleum. It is the raw material for dyes, explosives and synthetic resins. It is also commonly used as solvent as a main ingredient in paint thinners. It is also known as toluol.
Naphtha	Also known as unrefined gasoline (intermediate gasoline), it is mainly used as a raw material for petrochemical products. It has a fractional distillation range of between about 30 and 200°C
Biogasoline	A regular gasoline blended with bio ETBE (ethyl tertiary butyl ether), a substance created by synthesizing isobutene, a type of petroleum-based gas, with ethanol, which is derived from plants like corn and sugar cane. Biogasoline is a regular gasoline that has passed the standards of JIS (Japan Industrial Standards) and the Quality Control Law. Biogasoline can be used as original regular gasoline.
Particulate matter	The particles contained in the smoke from smokestacks.
Quality Control Law	Short for the Law on the Quality Control of Gasoline and Other Fuels. Prescribes the quality of gasoline and diesel oil sold at gas stations.
Benzene	A colorless liquid with aroma, it is insoluble in water. Also know as benzol. It is extremely volatile and easily ignitable. Because benzene is toxic, its use is restricted under Occupational Health and Safety Law and must be handled with care. Its molecular formula is C <sub>6</sub> H <sub>6</sub> and it is the most basic substance of the aromatic hydrocarbons.
Delivery terminals	A relay station where products refined at refineries can be efficiently delivered to where they will be consumed. Stockpiling at delivery terminals has advantages such as ensuring a stable supply and reducing distribution costs.

## CSR Report 2007

Published: November  
 Publisher: Japan Energy Corporation, Corporate Social Responsibility Department  
 2-10-1 Toranomom, Minato-ku, Tokyo, Japan 105-8407  
 TEL: +81-3-5573-6089  
 FAX: +81-3-5573-6784  
 Toll-free (in Japan): 0120-150-106 (JOMO Customer Center)  
 URL: <http://www.j-energy.co.jp/>

# JAPAN ENERGY CORPORATION

2-10-1 Toranomom, Minato-ku, Tokyo,  
Japan 105-8407  
Tel. +81-3-5573-6089  
<http://www.j-energy.co.jp/>



Japan Energy supports a forest preservation initiative sponsored by Japan's Forestry Agency. This CSR Report 2007 enhanced the use of thinned wood from forests in Nagano Prefecture, Japan. Making paper in this way preserves and expands forests, which absorb CO<sub>2</sub>.