JAPEX

Japan Petroleum Exploration Co., Ltd.

Integrated Report 2021

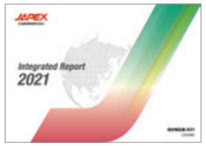
For the Year Ended March 31, 2021

Index

* 📖 Items marked by the book icon are explained in the "Glossary" on page 52.

Disclosure Systems

Business- and Finance-related Data | **Non-financial Data**



Integrated Report

https://www.japex.co.jp/en/ir/library/integratedreport/

Note: From this year's report forward, we will not issue a physical report, only a PDF version.

Website
IR

https://www.japex.co.jp/en/ir/

Website
Sustainability

https://www.japex.co.jp/en/sustainability/

Editorial Policy
Since the fiscal year ended March 31, 2016, we have issued our Corporate Report, which integrated the previous Annual Report and CSR Report. We have positioned this report as an important communication tool with all our stakeholders, including investors. From this year, we changed the name to the Integrated Report to make clear its position as an integrated report. We aim to convey in an easy to understand way information about our initiatives to sustainable enhance our corporate value while highlighting their connection to our financial and non-financial data.

In Integrated Report 2021, the special feature explores our carbon neutral direction and objective JAPEX2050 that was announced in May 2021. We also enhanced explanations regarding the Company's mission of ensuring a stable energy supply, risk management initiatives that support value creation, and corporate governance.

Reference Guidelines
METI, "Guidance for Collaborative Value Creation"
The Value Reporting Foundation (VRF)
IIRC, "International Integrated Reporting Framework"

Environment Social Governance
Guidance for Collaborative Value Creation

Organizations Covered by this Report
This report covers Japan Petroleum Exploration Co., Ltd. (JAPEX), and its 18 consolidated subsidiaries and other Group companies.

Reporting Period
Fiscal 2020 started on April 1, 2020 and ended March 31, 2021. Some statements include data before March 31, 2020 or after April 1, 2021.

Issuing Date
October 2021 (Next issue: October 2022)

Disclaimer
This Integrated Report includes past and current facts about JAPEX and its affiliate firms, their plans and prospects as of the issuing date, as well as forecasts based on their business plans and corporate management policies.

These forecasts represent management's assumptions or decisions based on information currently available. Readers should be aware that actual results may differ from these forecasts due to changes in the business environment.

Corporate Vision

Contribute to society through stable supply of energy and address social issues towards the Sustainable Development Goals.

- Explore, develop, produce and distribute crude oil and natural gas at home and abroad.
- Further strengthen the natural gas supply chain, built on our domestic infrastructure, by combining the electric power supply business.
- Contribute to resolving energy and climate change related challenges towards a sustainable society through developing and commercializing new technologies, drawing on our expertise.
- Achieve sustainable growth and maximize corporate value, while placing top priority on maintaining trust with all stakeholders.

The JAPEX Group Code of Ethics and Conduct

To realize our Corporate Vision and remain a company trusted by society, we hereby establish the JAPEX Group Code of Ethics and Conduct, which provides corporate ethics standards and principles of action to be adhered to by all officers and employees.

1. Comply with applicable laws and regulations, and respect international codes of conduct.
2. Place top priority on HSE (health, safety and environment).
3. Strive to maintain trust with stakeholders and to contribute to society.
4. Respect the human rights of all people.
5. Make efforts to create a good working environment.
6. Engage in fair and free competition and maintain appropriate trading practices.
7. Maintain sound and transparent relationships with politicians, political parties and government officials/agencies.
8. Resolutely terminate any and all relationships with anti-social forces.
9. Pay careful attention to managing and protecting confidential information and personal/clients’ data.

JAPEX's History

Since its founding, JAPEX has focused on the stable supply of oil and natural gas and the development of E&P technologies.

In light of changing structural energy demands, we will continue with our aim of growing into the Comprehensive Energy Company by promoting the creation of electric power and environmentally friendly businesses.

1950s–1960s: Started as a national policy concern to promote domestic oil and gas exploration

E&P Business

- 1955 Founded as a government-owned company by the Law of Japan Petroleum Exploration Co., Ltd.
- 1956 Discovered the Biratori oil field in Hokkaido, the first oil field discovered by JAPEX (in production from 1956 to 1961)

1970s–1980s: Put its business on track by successively discovering oil fields in Japan

E&P Business

- 1972 Discovered the Aga-oki oil and gas field in Niigata, the first ever offshore oil field discovered since the establishment of Japex Offshore Ltd.
- 1989 Discovered Yufutsu Oil and Gas Field in Hokkaido (In production from 1996)

1990s–2000s: Expanded business regions and promoted business diversification

E&P Business

- 2003 Commenced commercial production of bitumen by the SAGD method in Hangingstone leases in Canada (Ended our operation in 2021)
- 2007 Participated in the Kangean Project in Indonesia

Infrastructure/Utility Business

- 1996 Commenced operation of the Niigata-Sendai Gas Pipeline
- 2000 Commenced transportation of LNG tank containers on rail

New Business Development

- 1999 Contracted by the government for the Nankai Trough exploratory drilling business, the world's first marine methane hydrate survey
- 2008 Participated in funding Japan CCS Co., Ltd., which was established with the aim of creating practical applications for CCS technologies in Japan

2010s–: Aiming to grow as an comprehensive energy company

E&P Business

- 2013 Participated in the Shale Gas Project in Canada (Ended our participation in 2021)
- 2013 Commenced production of crude oil at the Garraf project in Iraq
- 2014 Participated in the Seagull Project in the United Kingdom's North Sea

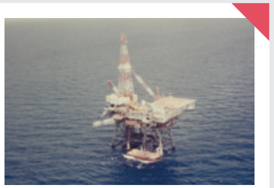
Infrastructure/Utility Business

- 2014 Commenced operation of the mega solar project at the Hokkaido District Office
- 2018 Commenced operation of the Soma LNG Terminal
- 2020 Commenced commercial operation of the Fukushima Natural Gas Power Plant

New Business Development

- 2014 Participated in funding Japan Methane Hydrate Operating Co., Ltd., which was funded with the aim of participating in offshore drilling tests of pore-filling type methane hydrate
- 2019 Achieved our target of injecting 300,000 tons of CO_2 in the Tomakomai CCS pilot test conducted through Japan CCS Co., Ltd.


JAPEX foundation ceremony


Aga-oki Platform


Niigata-Sendai Gas Pipeline


Bitumen produced through the steam-assisted gravity drainage process


Fukushima Natural Gas Power Plant of the Fukushima Gas Power Co., Ltd.

JAPEX Our Strengths

JAPEX's three strengths comprise the JAPEX Group's comprehensive technical capabilities related to oil and gas exploration, development, production, transportation and sales; domestic infrastructure that undergirds the stable supply of natural gas; and trusted relationships with stakeholders that serve as the foundation of our business.

Technical capabilities in the E&P Business

- We possess comprehensive technical capabilities that can fully augment the entire E&P Business.

For more information, see P.25

Application of technical capabilities in new business development centered on CCS

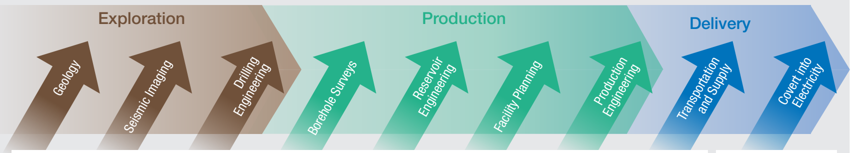
- We are working to create environmentally friendly businesses, expand renewable energy and other electric power businesses, and develop CCS technology that contributes to society's decarbonization by leveraging the technologies and expertise cultivated in the E&P Business.

For more information, see P.31

Operator capabilities in the entire oil and gas supply chain

- We possess operator capabilities that span the Group's entire supply chain, including the E&P Business, transportation, regasification of imported LNG, and natural gas power generation.

▼ Operator capabilities in the entire oil and gas supply chain



Japan Petroleum Exploration Co., Ltd.
Fukushima Gas Power Co., Ltd.
JGI, Inc.
Geophysical Surveying Co., Ltd.
Japex Offshore Ltd.
Japex Pipeline Ltd.
SK ENGINEERING CO., Ltd.
North Japan Security Service Co., Ltd.
Akita Natural Gas Pipeline Co., Ltd.
GEOSYS, Inc.
JAPEX SKS Corporation
Shirone Gas Co., Ltd.

JAPEX Group

Diverse gas supply network

- We provide a stable supply of LNG and natural gas, which offer low environmental burden, using diverse transportation methods, such as JAPEX's own natural gas pipeline network and railway tank containers.

Resilient system for stable operation of infrastructure

- In the Shiunji Gas Field in Niigata Prefecture, we are storing domestic natural gas underground to help meet variable demand and ensure a stable supply of gas for emergencies.
- We are building a system for stable operation of infrastructure without major accidents or injuries. We have been able to ensure safety during crises, such as the Great East Japan Earthquake, achieving quick recovery and the restart of supply.

For more information, see P.28

Thorough safety and quality management

Environmental conservation initiatives

Contributing to local communities

Attractive workplaces of choice

- Since our founding, we have been able to build relationships of trust by contributing to local communities and holding dialogue with various stakeholders. These relationships have become the foundation of our business.

For more information, see P.33-40

Who We Are

At a Glance

Toward "Growth to the Comprehensive Energy Company Utilizing Oil and Gas E&P and its Supply Basis" as stated in the Long-term Vision 2030, we have positioned the E&P Business, the Infrastructure/Utility Business, and the New Business Development as areas of key importance.

Long-term Target

Maintain "RRR >1"

Business Overview

Since its founding, JAPEX has been involved in the upstream oil and natural gas businesses of exploration, development and production, as well as transportation and supply, racking up numerous accomplishments in Japan and overseas. The wide range of technologies and expertise we have accumulated over time have contributed to the stable supply of energy.

Long-term Target

Promote supply of energy with a low environmental impact

Business Overview

To meet energy demand in Japan, we provide a stable supply combining domestically produced natural gas and LNG procured from overseas. We also conduct contract services using our infrastructure foundation, including owned natural gas pipelines and LNG terminals. In addition, we are promoting the supply of low-environmental-impact energy by supplying electricity from natural gas-fired power generation and promoting the renewable energy business.

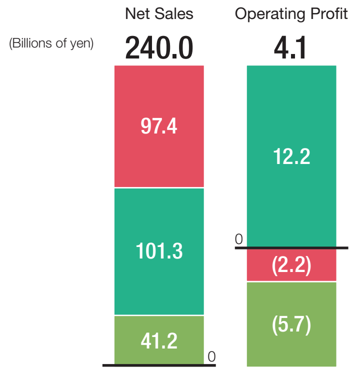
Long-term Target

Generate environmentally friendly new business

Business Overview

Using technologies and experience acquired through the E&P Business, we are striving to develop eco-friendly next-generation technologies and new energy sources (mainly for CCS), construct a new business model in peripheral areas of existing businesses, and identify unique businesses seeds.

By Business

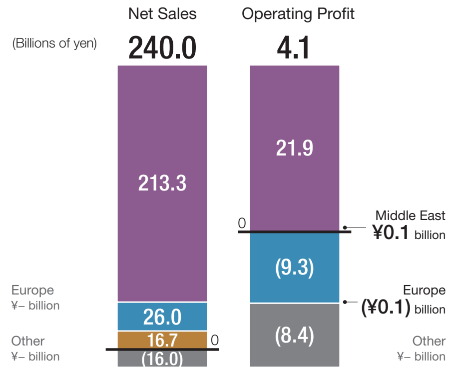


FY2020 Results

E&P Business | Infrastructure/Utility Business | Other*

* Earnings related to the sale of oil products and contract business not included in the E&P Business or the Infrastructure/Utility Business (operating profit includes Headquarters administrative expenses)

By Region



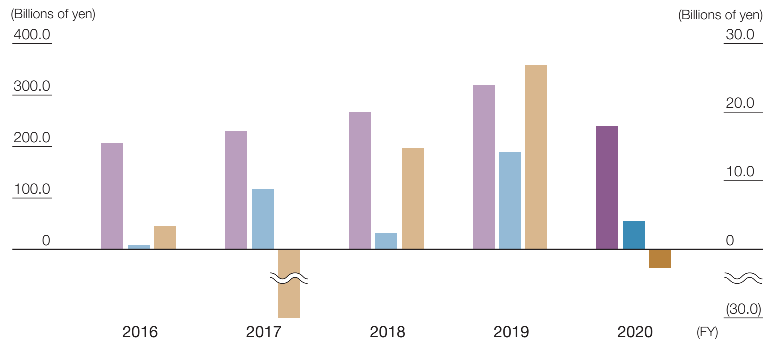
FY2020 Results

Japan | North America | Middle East | Adjustments*

* Adjustments mainly comprise the elimination of intersegment transactions and corporate expenses (especially general and administrative expenses and experimentation and research expenses, all of which are not attributable to the reportable segments)

Results over the past five years

Net Sales (left axis) | Operating Profit (right axis) | Profit (loss) (right axis)



President's Message

Growth to the Comprehensive Energy Company Utilizing Oil and Gas E&P and its Supply Basis

藤田昌宏

FUJITA Masahiro

Representative Director and President,
Chief Executive Officer

Maintaining a Stable Energy Supply during the COVID-19 Pandemic

The purpose JAPEX serves in society is, above all else, to help ensure a stable energy supply. Amid the recent COVID-19 pandemic, medical professionals have been working tirelessly, but a stable energy supply is also indispensable to enabling hospitals and health centers to properly function. We must continuously provide petroleum, natural gas, and electric power to people, so they may live their lives, as well as to diverse industries and public institutions, so they may continue their activities, while facing the unpredictable situation presented by the pandemic.

In February 2020, to respond to the COVID-19 pandemic, JAPEX established the Emergency Countermeasures Headquarters with me as its head. Under JAPEX's "safety first" corporate culture, we have taken various countermeasures and initiatives. We took thorough Company-wide infection prevention countermeasures and at the same time flexibly adjusted work systems and frontline operations to maintain stable production operations while assuring employee safety. Furthermore, we maintain stable operations at our oil and gas fields and gas supply bases by formulating business continuity plans (BCPs) and leveraging our operational experience.

I believe that the Company's Corporate Vision upholds our social mission of ensuring a stable energy supply under any circumstances. It is also vital to increasing opportunities for JAPEX's sustainable growth.

President's Message

Looking Back on Fiscal 2020

Under the Long-term Vision 2030 formulated in 2018, JAPEX targets "Growth to the Comprehensive Energy Company Utilizing Oil and Gas E&P and its Supply Basis." We are working to evolve an earnings structure that enables sustainable growth even when oil prices are low as we transform into a business structure that can respond to the changing needs of society.

We formulated the Medium-term Business Plan 2018–2022 (the current plan) as an outline of key initiatives and the direction for management and business over the first five years toward achieving that goal. Under the current plan, we strive to improve our financial standing and diversify our business base with the aim of achieving return on equity (ROE) of 5% or more by fiscal 2022.

In fiscal 2020, the third year of the plan, we achieved a major milestone in the electric power business, one of the Company's new pillars. Fukushima Gas Power Co., Ltd. (FGP), of which JAPEX is the largest shareholder, constructed the Fukushima Natural Gas Power Plant and, as planned, began commercial operations of Unit No. 1 in April 2020 and Unit No. 2 in August 2020. With this, the Company's electric power sales business has been firmly established, and we have been commissioned by FGP to begin operations to store and regasify LNG for power generation brought in by business partners as well as to supply the regasified LNG to power stations. Electric power sales and LNG regasification commission operations related to FGP are expected to contribute to the Company's revenues going forward as an initiative aimed at building a business base that is resilient to the impact of crude oil price volatility.

▼ Fukushima Natural Gas Power Plant of Fukushima Gas Power Co., Ltd.

In oil and gas development, in Japan, we began production in June 2020 in the shallow reservoir of the Yufutsu Oil and Gas Field in Hokkaido, where we began development work from 2018. Overseas, we are moving forward with development operations in the Seagull Project in the U.K. North Sea and others.

As a result, in fiscal 2020, we were able to establish the earnings base of the electric power business through the full-scale operations of the Fukushima Natural Gas Power Plant. However, mainly due to a decrease in profit attributable to the drop in oil prices and the recording of an impairment loss on domestic business assets, profit attributable to owners of parent decreased ¥29.5 billion year on year to a loss attributable to owners of parent of ¥2.7 billion.

Revaluation of Existing Businesses Based on Changes in the Business Environment and Business Direction Going Forward

The business environment surrounding JAPEX is changing significantly due in part to the effects of the protracted COVID-19 pandemic and demands from society for decarbonization. Amid the turbulence caused by these environmental changes, JAPEX must continue to grow. To this end, we will continue working to further develop existing business fields and create new business opportunities.

Demand forecasts released by energy-related organizations, including the International Energy Agency (IEA), show that demand for oil and natural gas will hold steady at a certain level going forward. JAPEX is striving to help realize a carbon neutral society by using CCS/CCUS📖 and other decarbonization technologies, while ensuring a stable energy supply continues uninterrupted by carrying on its oil and natural gas E&P business. In addition, assuming that future demand for oil and gas will decline, we will work to expand the supply of low environmental impact electric power, including the renewable energy business, and transform from an E&P company into a company that supplies diverse types of energy.

Specifically, we are reevaluating business assets, revising our business portfolio to improve capital efficiency, and continuing to promote growth investments in the renewable energy business and new business development.

As of March 31, 2020, we lowered our medium- to long-term crude oil CIF📖 price (JCC) forecast from USD60 to USD50 per barrel in consideration of changes in the business environment and the risk of higher carbon pricing. As a result of reevaluating assets on this assumption, we recorded an impairment loss for some business assets in Japan. In addition, in May 2021, we sold all of the ownership interest held by the consolidated subsidiary JAPEX Montney Ltd. for the struggling Canada Shale Gas Project

President's Message

based on the judgment that it will be difficult to quickly improve profitability. In July 2021, we decided to end JAPEX's business in the Canada Oil Sands Project and sell all shares of the consolidated subsidiary Japan Canada Oil Sands Limited, which is the main operator for the project.

In May 2021, we unveiled "JAPEX2050: Toward a Carbon Neutral Society," which shows our direction as an comprehensive energy company. It is based on the Japanese government's target of achieving carbon neutrality by 2050.

Under JAPEX2050, we aim to achieve net zero greenhouse gas (GHG) emissions from our operations by 2050. We established the goal of reducing CO_2 emission intensity from our operations by 40%, compared with fiscal 2019, by fiscal 2030. JAPEX strives to reduce net CO_2 emissions, especially by swiftly utilizing CCS/CCUS technologies in practical applications. In addition, we will continue contributing to the achievement of these goals in part by expanding our participation in the biomass power business, in which we can use our experience in natural gas power generation, and in the renewable energy business, centered on offshore wind power generation, in which we can use our experience in the oil and gas E&P business.

CCS/CCUS is a promising field where JAPEX can leverage its strengths. Because the oil and gas fields we own in Japan have an equivalent amount of CO_2 storage potential, we expect that the depleted oil and gas fields can contribute to future business earnings with this new utility value.

These are some ways the environment surrounding the Company has significantly changed since the formulation of the current plan in 2018. We therefore realize the need to quickly revise the current plan. We intend to swiftly move forward with discussions and publicly announce a new medium-term business plan that incorporates the results of the discussions.

To transform our business structure amid the drastically changing environment surrounding JAPEX, it is important to share with stakeholders the Company's focused direction and management's insight. We consider the external readers of this integrated report and employees to be important stakeholders.

We regularly hold town hall meetings as opportunities for direct dialogue between employees and management. These events are not just a place for the president and officers to provide explanations on management policies and business conditions. It's also a place for open question and answer sessions. And since fiscal 2020, I began sending e-mail messages to all employees on the President Channel. I am also working to provide feedback on opinions solicited from employees. Going forward, while valuing in-house communication, the entire Company will come together with the aim to further enhance the growth and value of the Company.

Strengthening Our ESG Response

For JAPEX to continue growing over the medium to long term, I believe it is important to maintain an awareness of and contribute to the sustainability of society overall. JAPEX identified five key CSR issues called "SHINE" in 2014 and has been working on each one since then. Going forward, we will promote various new measures to further enhance and accelerate our ESG response.

As a specific initiative, in April 2021, we established the Risk Management Committee to strengthen our Company-wide risk management system. We strengthened the identification, evaluation, and response process for risks using risk matrices.

Regarding the "environment," we recognize climate change as a major environmental risk. We utilize the above-mentioned process to manage climate change, and work to respond in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Scenario analysis results are used in considerations of JAPEX2050. We combine considerations of responses to and management strategies for climate change risks. Going forward, we will further strengthen these initiatives and promote appropriate disclosures.

Moreover, in terms of "society," we are continually working to create workplaces that are attractive to employees. In October 2020, we formulated the JAPEX Health Management Declaration. We declared the Company-wide policy of supporting employee health and creating workplace environments where they can work comfortably physically and mentally. We also value employee diversity and conducted activities to raise awareness, including research related to diversity and inclusion. These efforts have

Five Core CSR Themes "SHINE" P.33

S	Stable and sustainable energy supply	E S
H	HSE as our culture	E S
I	Integrity and governance	G
N	Being a good Neighbor	S
E	The Employer of choice	S

President's Message

received praise and recognition. We acquired "Eruboshi" certification, which is based on the Act on the Promotion of Female Participation and Career Advancement. Furthermore, JAPEX was certified as a leader in Health and Productivity Management (large-sized corporation category) for the fifth consecutive year.

Regarding "governance," we are steadily working to strengthen our systems as a foundation for all business activities. In 2020, we increased the number of outside directors, shortened the term of directors, and amended the officer compensation plan. We select external personnel with wide-ranging expertise and careers to be outside directors, emphasizing diversity in our officer system. The Board of Directors always hosts lively discussions, receiving thoughtful opinions from various perspectives from outside directors and outside Audit & Supervisory Board members. The executive compensation plan was amended with the purpose of raising awareness of contributions to enhancing corporate value and boosting medium- to long-term operating results by ensuring directors share not only the benefits of a rise in the share price but also the risks of a fall in the share price. Furthermore, since fiscal 2021, we integrated our existing committees and established a new Sustainability Committee, unifying the Medium-term Business Plans and our ESG response to create a system that enables discussion.

We will continue working to strengthen governance with the aim of enhancing corporate value.

Shareholder Returns

JAPEX's basic shareholder return policy is to maintain the stable payout of dividends over the long term. Specific dividend amounts are set in comprehensive consideration of the profit situation of each period and future funding needs in line with medium- to long-term forecasts of the business environment. At the same time, we consider internal reserves for maintaining and expanding supply infrastructure and investment aimed at securing new oil and natural gas reserves in Japan and overseas. There is no change in our base line of ¥50 per share for the annual dividend.

In the forecasts for consolidated operating results in fiscal 2020 and 2021, for two consecutive fiscal years, we forecasted a loss attributable to owners of parent due to a recording of one-off losses, such as an impairment loss, loss on transfer of interests, and a loss on the sale of subsidiary shares. Nevertheless, based on JAPEX's stable financial foundation and a desire to maintain the base line of dividends, we set the fiscal 2020 and fiscal 2021 dividend forecast at ¥50.

Companies dealing in oil and gas are facing a major transformational period due to the rising calls for a carbon-neutral society and accelerating divestment from fossil fuels. JAPEX considers these changes to be new business opportunities and will continue meeting expectations for shareholder returns over the medium to long term by enhancing corporate value through growth investments.

I would like to thank all our shareholders and investors for their continued support.

The JAPEX Group's Value Creation Process

Given changes in the economic and social environment, the JAPEX Group aims to contribute to all its stakeholders, achieving sustained and enhanced corporate value through business activities that take advantage of its strengths.

Awareness of the External Environment

Rapid shift as society decarbonizes
- Strengthening climate change countermeasures in each country
- Rising demand for low-environmental-impact energy
- Expanding risk of oil and gas price fluctuations

Increasing importance of ESG management
- Rising calls from stakeholders for enhanced disclosure and stronger responses

P.10-14

Realizing "JAPEX2050: Toward a Carbon-Neutral Society"

Input

(FY2020 Results)

Financial capital
P.50
- Shareholders' equity ¥**358.5 billion**
- Interest-bearing debt ¥**118.7 billion**
- Equity ratio **64**%

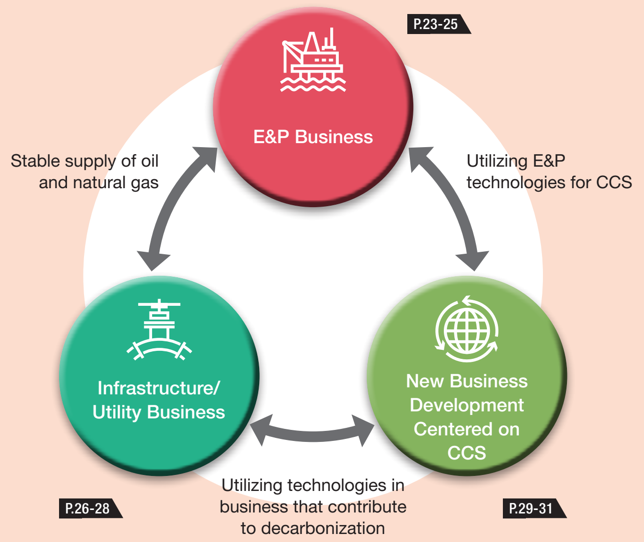
Production capital
P.26
- Very stable energy supply chain:
  Three LNG terminals (Hokkaido, Fukushima, Niigata)
  Gas pipeline spanning a total of over **800** km
  Fukushima Natural Gas Power Plant output **1.18 million** kW (JAPEX stake: 33%)
  Transport through coastal vessels, rail, and tanker trucks in addition to gas pipelines

Intellectual and human capital
P.23-31
- Development and operational capabilities of the E&P Business: operation track record of **65** years
- Comprehensive technical capabilities of the Group that span the entire E&P Business and highly knowledgeable geological and reservoir technicians
- Operating results of the Infrastructure/Utility Business:
  High-pressure gas pipeline operation: **60** years; LNG terminal operation: **18** years; tanker truck transport: **38** years; rail container transport: **21** years; coastal vessel transport: **10** years
- Expanding mid-career hires to expand new business development (mid-career hiring rate: **16**%)

Social and relationship capital
P.35
- Relationships of trust with operating regions and customers
- Support of the Japanese government
- Continuous partnership with oil-producing countries for over **40** years

Natural capital
P.23
P.31
- Proved reserves **317 million** barrels
- Domestic oil and gas fields that can be used for CCS/CCUS and adjusting supply and demand

Business Model



Initiatives to Support Value Creation
P.33-48
Corporate Governance, Compliance, HSE, Diversity, Health Management, Other

Corporate Vision
P.01
Contribute to society through stable supply of energy and address social issues towards Sustainable Development Goals

Output

(FY2020 Results)

Financial Achievement
- ROE: –**0.7**%
- Consolidated net income: –¥**2.7 billion**
- EBITDA: ¥**37.1 billion**
- Operating cash flow: ¥**43.2 billion**

Production and Supply of Energy
- Production volume: **62,000** boe/day
- Natural gas transaction volume: **1,480,000** tons (LNG equivalent)
- Electric power sales: **3.0 billion** kWh

ESG
- Lost time injury rate*1: **0.29** (target: 0.13)
- Percentage of childcare leave taken
  Men: **45.3**%
  Women: **100**%
- Percentage of female managers: **5.9**%
- Setting GHG emission reduction targets
  Scope 1+2
  2050: Net zero
  FY2030: **40**% reduction in emissions intensity (Compared with FY2019)
  Scope 3: Strengthening business fields that contribute to reduction
- GHG emissions
  Scope 1+2: **0.82 million** tons of CO_2
  Scope 3, category 11: **15.72 million** tons of CO_2
  Emission intensity*2: **3.43** tons of CO_2/TJ (Down **14**% compared with FY2019)

External Evaluation
- Certified as a leader in Health and Productivity Management
- Eruboshi certification (third stage of the highest)

*1 Lost-time injury rate: The number of total recordable injuries per 1,000,000 hours worked.
*2 Emission intensity: Intensity within the scope of GHG emission goals. See page 17 for details.

Outcomes

Economic value
- Improve ROE 5% or more by FY2022
- Maintain stable long-term dividends

Social and environmental value
- Maintain a stable energy supply
- Contribute to the realization of a carbon-neutral society through technology like CCS/CCUS
- Reduce GHG emissions of own operations

Three SDGs we focus our efforts on

7 AFFORDABLE AND CLEAN ENERGY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
13 CLIMATE ACTION

Special Feature

JAPEX2050

JAPEX 2050 Toward a Carbon-Neutral Society

Since announcing its Long-term Vision 2030 in 2018, JAPEX has worked to address the global climate-related issues. To further promote this measure, we formulated and announced “JAPEX2050: Toward a Carbon-Neutral Society” in May 2021. By steadily implementing JAPEX2050, JAPEX contributes to the realization of a carbon-neutral society through a stable energy supply.

Carbon Neutral Direction & Objective
https://www.japex.co.jp/en/ir/management/carbonneutral/

JAPEX’s Path toward Decarbonization

FY2018	Announced Long-term Vision 2030
FY2019	Successfully injected a cumulative 0.3 million tons of CO_2 in the large-scale CCS demonstration project in Tomakomai, which JAPEX participated in (Began injection from fiscal 2016) Introduced internal carbon pricing (ICP) system in our investment evaluation standards
FY2020	Strengthened our CCS/CCUS promotion system by establishing an environmental business promotion department
FY2021	Announced JAPEX2050
FY2021	Plan to announce a new Medium-term Business Plan based on JAPEX2050

JAPEX2050 Roadmap

	2021 → 2030	2030 → 2050
GHG Emission Reduction Target	Reduce Scope 1+2 emission intensity 40% compared to FY2019	**Achieve net-zero emissions by 2050**
CCS/CCUS	Consider to implement CCS/CCUS at JAPEX’s domestic oil and gas fields Location surveys and implement examination of CCS/CCUS in deep saline aquifers* in Japan	**Commercialize CCS/CCUS in Japan**
Other Areas to Contribute toward Net-zero	Consider and verify carbon-recycling projects	**Commercialize carbon-recycling business** (on our own and/or with cooperation on supplying raw material)
	Increase renewable energy sources and supply	
	Stable electricity supply from the natural gas power plant	**Power plants with CCS** (natural gas-fired and BECCS📖)
Stable Supply of Oil and Natural Gas	Enhance natural gas and LNG utilization, including carbon-neutral LNG supply	
	Acquire new overseas interests with focus on natural gas and including CCUS, Continue development and production aiming to meet demand	

2021 2030 2040 2050

* Sandstone layer deep underground that includes ancient seawater (saltwater) which is not suitable for drinking. Its geographical distribution is broader compared to oil and natural gas reservoirs, and CO_2 storage capacity is anticipated.

Special Feature

JAPEX2050

With the global trend toward decarbonization gaining steam in recent years, the Japanese government in October 2020 announced its aim to realize carbon neutrality by 2050. In line with these external trends, we have organized the risks and opportunities that climate change poses to our businesses during the transition as society decarbonizes. JAPEX2050 is our vision that clarifies the responsibilities and roles we need to fulfill to achieve the goal of net-zero CO_2 emissions by 2050 worldwide. By steadily implementing measures based on JAPEX2050, we will pursue new possibilities for the stable supply of energy in the carbon-neutral society, while aiming for further growth as a comprehensive energy company.

JAPEX2050 comprises GHG emission reduction targets and focused efforts to realize a carbon-neutral society. The details are as follows.

• GHG Emission Reduction Targets

Emissions from our operation sites (Scope 1+2*1) and supply chain emissions (Scope 3)

• Focused Efforts to Realize a Carbon-Neutral Society

1. Turn carbon neutrality into a profitable business based on CCS/CCUS technologies

2. Expand participation in renewable energy projects

3. Stable supply of oil and natural gas

GHG Emission Reduction Targets

Scope 1+2		Scope 3
2050 Achieve net zero	**FY2030** GHG emission intensity*2 40% reduction (compared with FY2019)*3	Contribute to establishing new technologies and energy supply with low environmental impact, for achieving net zero CO_2 emission by 2050 in our supply chain.

Scope 1+2 Targets

We will reduce GHG emission intensity 40% by fiscal 2030 compared to fiscal 2019 and achieve net zero GHG emissions from our operating sites by 2050.

To achieve these targets, we will continue strengthening the following efforts we have been implementing.

- Energy savings: Improve the energy efficiency of boilers, compressors, and other equipment and upgrade to highly efficient equipment
- Emission control: Reduce methane emitted into the atmosphere (encourage use as gas for incineration disposal and self-consumption) and reduce flare emissions

In addition, we will introduce such new measures as applying technologies to enhance oil and gas recovery (CO_2-EOR/EGR) by injecting CO_2 separated and recovered from production gas underground and expanding use of renewable energy with low CO_2 emissions.

To steadily achieve our GHG reduction targets, we set targets for every fiscal year in the CSR action plans and manage their progress.

Scope 3

JAPEX's total Scope 1, 2, and 3 GHG emissions amounted to around 17.33 million tons of CO_2 in fiscal 2020, and Scope 3 emissions accounted for the vast majority at about 95%. Because Scope 3 category 11 (use of sold products) emissions were especially high, reduction of these emissions is an important issue for JAPEX. We aim to reduce Scope 3 emissions by promoting the efforts, focused on realizing a carbon-neutral society, which are explained on the following pages.

*1 Based on the GHG Protocol's operational control approach.
*2 CO_2 emissions (ton-CO_2) per 1TJ (terajoule) of energy supplied by JAPEX
*3 FY2019 intensity: 3.97 ton-CO_2/TJ

Scope 1: Direct GHG emissions from fuel consumption and emissions into the atmosphere at operation sites owned or controlled by the company
Scope 2: Indirect emissions from the consumption of electricity, steam, heat, and cooling purchased by the company
Scope 3: All indirect emissions that occur in the value chain of the company

Special Feature

JAPEX2050

Focused Efforts to Realize a Carbon-Neutral Society

1. Turn carbon neutrality into a profitable business based on CCS/CCUS technologies

According to the IEA's report, to achieve the 2°C target*1 of the Paris Agreement, CCS/CCUS are expected to account for around 14% of the CO_2 reduction by 2050, and that ratio is forecast to further expand from 2050 onward. CCS/CCUS has been identified as a key technology to realize a carbon-neutral society.

Through its E&P Business, JAPEX has cultivated technologies and experience in geological analysis, well drilling, reservoir monitoring, and other fields. Because these technologies and experiences can be used in CCS/CCUS, the Group possesses the technological capabilities and personnel that are essential elements for CCS/CCUS, such as selecting CO_2 reservoir locations, well drilling to inject CO_2, and monitoring injected and stored CO_2. In addition, we possess oil and gas fields in Japan that are expected to be used as future CO_2 reservoir locations as well as infrastructure and equipment, such as gas supply pipelines, that can be repurposed into CO_2 pipelines. We aim to swiftly commercialize and apply CCS/CCUS as a top operator in Japan.

The Company's initiatives to date aimed at CCS/CCUS commercialization are as follows.

Reference: JAPEX's Strengths and New Possibilities in CCS/CCUS P.31

① Demonstration Project through Japan CCS Co., Ltd.

In the large-scale CCS demonstration project in Tomakomai that we participated in through Japan CCS Co., Ltd., during the CO_2 injection preparation period between fiscal 2012 and 2015, operations were implemented, such as drilling wells needed for injecting and monitoring CO_2, analyzing samples from drilled wells, evaluating reservoirs, and studying monitoring systems for injected CO_2. After starting CO_2 injecting in fiscal 2016, we successfully injected our target of a cumulative 300,000 tons of CO_2 in fiscal 2019. We are still currently conducting monitoring. In these initiatives, we accumulated expertise related to selecting candidate sites, drilling wells, and monitoring CO_2. In addition, JCCS is conducting surveys of sites suitable for CO_2 reservoirs in the seas around Japan.

② Joint Development of CCUS Technology Using JAPEX's Wells (CO_2 Microbubble Injection Technology)

In fiscal 2016, the Geological Carbon Dioxide Storage Technology Research Association was founded by three private sector companies: the Research Institute of Innovative Technology for the Earth (RITE), the National Institute of Advanced Industrial Science and Technology (AIST), and JAPEX. The association conducted a test to inject CO_2 that has been turned into microbubbles into existing wells in JAPEX's Sarukawa Oil Field in Akita Prefecture between fiscal 2019 and 2020, confirming an improvement in injectability, storage ratio, and oil recovery rate compared to conventional CO_2 injection. JAPEX played a leading role in the study of these technologies and accumulated expertise related to injecting and storing CO_2.

③ Leveraging Overseas Project Experience for CCUS Feasibility Survey

In fiscal 2017, in the South Sumatra Oil Fields in the Republic of Indonesia, we conducted a feasibility survey of CCUS projects using a joint crediting mechanism (JCM).*2 We evaluated the feasibility as a JCM project by evaluating the amount of CO_2 reduced from CCUS (CO_2-EOR: enhanced oil recovery method using CO_2 injection) and analyzing the economic viability that combines CO_2 credit and the oil boosting effect of EOR. We leveraged our experience participating in the E&P project in Indonesia to accumulate expertise related to CCUS feasibility evaluation.

From fiscal 2020 onward, we launched multiple new initiatives, including a feasibility study on a carbon recycling project with the sector-coupling in Tomakomai in Hokkaido, a joint study on CO_2 utilization around Niigata area, and a feasibility study of CCUS project in the Sukowati Oil Field in Indonesia.

In addition, in fiscal 2020, we strengthened our internal systems by establishing the Environmental Business Promotion Dept., which is charged with the mission to realize the swift commercialization of CCS/CCUS, and the CCUS Promotion Committee, which is an organization-wide working group headed by the vice president.

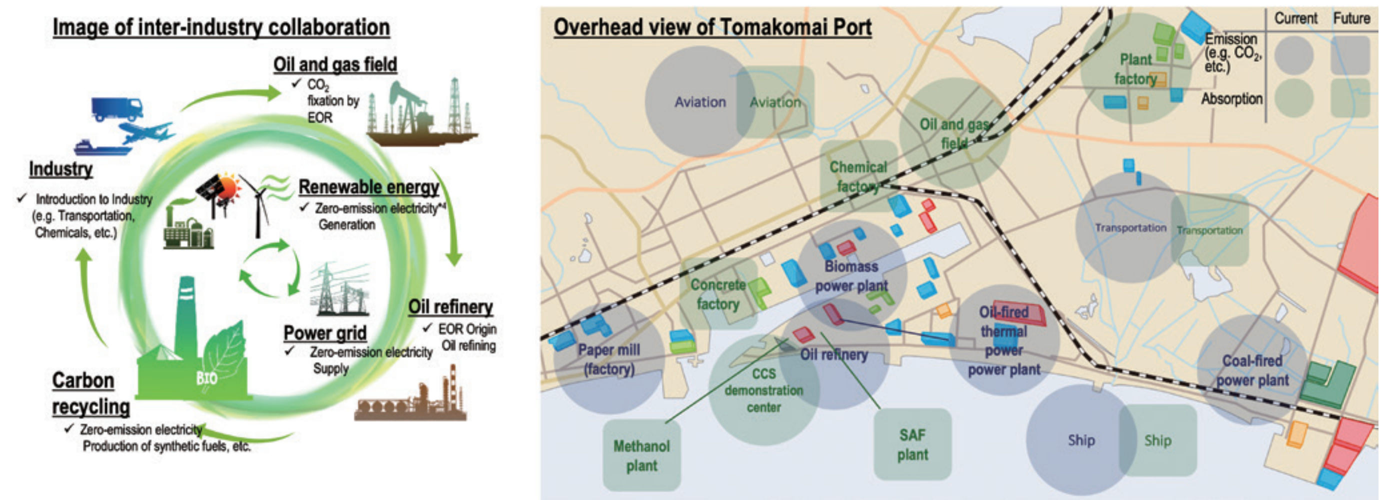
Please refer to the press releases below for more information on our initiatives from fiscal 2020 on.

Start of a Feasibility Study on a Carbon Recycling Project with the Sector-Coupling in Tomakomai
https://www.japex.co.jp/en/news/detail/20210326_01/

Joint Study on CO_2 Utilization around Niigata Area
https://www.japex.co.jp/en/news/detail/20210528_01/

Agreement for Joint Feasibility Study of CCUS Project Using Joint Crediting Mechanism at Sukowati Oil Field in Indonesia
https://www.japex.co.jp/en/news/detail/20210622_03/

▼ Illustration of the Carbon Recycling Business*3 Using Inter-Sector Collaboration in Tomakomai



*1 Target to suppress the rise in global average temperature to a sufficiently low level of 2°C compared with the preindustrial level
*2 Joint crediting mechanism: A system to construct a mechanism for transferring technologies and implementing measures in response to the situation of emerging countries and thereby contribute to Japan's reduction and absorption of global greenhouse gas emissions
*3 This illustration is based on results obtained from a project commissioned by the New Energy and Industrial Technology Development Organization (NEDO).
*4 Electric power that does not emit CO_2 when it is generated, such as renewable energy.

Special Feature

JAPEX2050

2. Expand participation in renewable energy projects

We will expand our participation in renewable energy projects, demand for which is expected to rise going forward.

We will continue studying commercialization, including the expansion of project candidates, especially biomass and offshore wind power, while leveraging our knowhow and strengths, such as the technologies and expertise related to underground structures cultivated in the E&P Business, operating experience in offshore platforms, experience establishing natural gas power plants and procuring fuel in the Infrastructure/Utility Business, as well as the relationships of trust built with local residents and neighboring communities in existing business areas.

Collaboration with CCS/CCUS Technologies

Bioenergy with Carbon Capture and Storage (BECCS), which combines CCS technologies with biomass power, is a key technology to help society realize decarbonization. We will continue contributing to the realization of a carbon-neutral society by 2050 by leveraging our expertise and strengths in an effort to enter the BECCS market.

3. Stable supply of oil and natural gas

JAPEX has contributed to the development of the oil and gas E&P (exploration, development and production) in Japan and overseas to date with its mission of ensuring a stable supply of energy. We will continue to play a role of ensuring a stable energy supply through the expansion of the natural gas supply business and the E&P Business to acquire and develop oil and gas interests. We also aim to realize a carbon-neutral society by simultaneously utilizing oil and gas resources and decarbonization technologies, such as CCS/CCUS.

Encouraging Use of Natural Gas

Because natural gas has the lowest environmental burden among fossil fuels, we positioned it as an important energy source for the recent progress toward decarbonization. In addition, the supply of electric power produced from gas-fired power plants is needed to supplement volatility in the output of renewable energy, which is expected to further expand going forward. We will continue to respond to the demand for natural gas as part of its initiatives aimed at realizing a carbon-neutral society. In fiscal 2018, we constructed the Soma LNG Terminal, which has a 230,000-kL aboveground LNG tank—the largest in Japan. In fiscal 2020, JAPEX's affiliate company Fukushima Gas Power Co., Ltd.'s Fukushima Natural Gas Power Plant began operations. With power generation equipment that uses combined cycle gas turbines, the plant realized a world-class power generation efficiency of around 61% at the start of operations.

Going forward, we will continue to help realize a carbon-neutral society by promoting the stable supply of natural gas, responding to demand for switching fuels from coal and heavy oil, and supplying carbon-neutral LNG that has net zero CO_2 emissions.

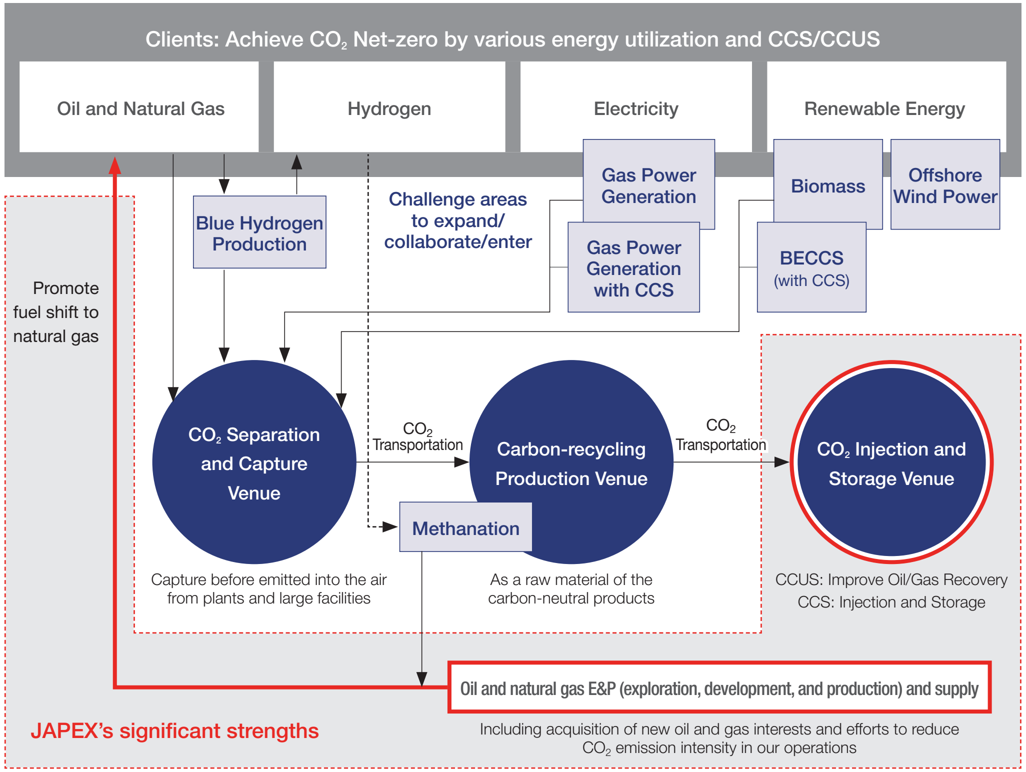
Interest Acquisition and Development

In each of the IEA's scenarios, oil and natural gas will play a major role in meeting the world's energy demands, which will rise going forward. Recognizing that oil and natural gas will play a central role in the world's primary energy over the medium to long term, we will continue contributing to the stable supply of oil and natural gas by acquiring new interests overseas and developing new and additional projects in Japan. To realize a carbon-neutral society by 2050, we aim to maintain a stable supply of sustainable energy by strengthening initiatives for blue hydrogen[*1] production and methanation technologies[*2] to use with CCS/CCUS technologies and initiatives for decarbonization in the E&P Business, such as introducing CCS/CCUS to projects we participate in, and expanding participation in natural gas development projects.

Reference: Details on the initiatives: E&P Business, P.23
Reference: Details on the initiatives: Infrastructure/Utility Business, P.26

Business Assumptions toward 2050

CCS/CCUS centered business cycle toward a carbon-neutral society



*1 Hydrogen produced from natural gas, and CO_2 captured after production
*2 Technologies that produce methane from hydrogen and CO_2

Special Feature

JAPEX2050

Interview with an Outside Director

Realizing a Carbon-Neutral Society by 2050 and JAPEX2050

Background of Outside Director
YAMASHITA Yukari

October 1985
Joined the Institute of Energy Economics, Japan

June 2011
Became the Director and Head of the Climate Change and Energy Efficiency Unit

July 2011
Became a Board Member and Director in Charge of the Energy Data and Modelling Center

June 2019
Became an Outside Director at JAPEX (current position)

June 2020
Became a Managing Director of the Energy Data and Modelling Center at the Institute of Energy Economics, Japan (current position)

January 2021
Became Executive Vice President of the International Association for Energy Economics, Inc. (current position)

Topic 1 | The Global Trend toward Realizing a Carbon-Neutral Society by 2050

The trend toward realizing a carbon-neutral society by 2050 has been gaining momentum around the world. Could you tell us more about this trend?

Japanese companies have worked to introduce systems based on such policies as those related to the TCFD and ESG investment, driven mainly by pressure for such environmentally friendly corporate activities as disclosure of non-financial information and divestment from coal and other fossil fuels led by investors, the financial industry, and Europe, which has long emphasized use of renewable energy.

Motivated by pleas from young people for stronger climate change action, economic downturns caused by the COVID-19 pandemic from early 2020, and rising unease and dissatisfaction among citizens, politicians suddenly accelerated the trend toward decarbonization through carbon neutrality declarations. Although there has only been a small number of countries that announced specific details, over 120 countries have made similar declarations as of July 2021.

In October 2020, Prime Minister Suga of Japan declared carbon neutrality by 2050 and, in April 2021, announced a 46% reduction in GHG emissions by fiscal 2030 compared with fiscal 2013, significantly changing Japan's energy and environmental policy targets with a top-down approach and making a sharp turn toward decarbonization.

What is needed in the energy sector to realize a carbon-neutral society by 2050?

The priority issue for the energy sector in Japan, which relies on imported energy, is securing an economic and stable supply of energy. Upgrading infrastructure is also a major issue to accelerate a transformation in energy while ensuring daily life continues as normal. Tight supply and high demand during the transition period could pose the risks of damaging international competitiveness and stalling the transformation if higher costs spill over into corporate activities, rather than only impacting personal living expenses. Maintaining appropriate investment in the existing supply network will also be important to avoid these risks.

Moreover, to reduce emissions while utilizing existing energy systems, we need not only renewable energy but also the development and introduction of highly efficient decarbonization technologies for fossil fuels. Promoting decarbonization is not only important in advanced countries but also emerging and developing countries that will be the center of growth going forward. One role of the energy sector is to be a bridge during the transition while we supply the energy needed for the one billion people currently without access to energy as well as the future generation of two billion people to be born by 2050. We need more people to understand that what climate change countermeasures require is the reduction of GHG emissions and not abstinence from fossil fuels.

Energy companies have outlined the common issues of expanding renewable energy business, conserving energy, and switching to alternative fuels. The oil industry plans to promote hydrogen, ammonia, and CCS/CCUS. The gas industry plans to promote carbon-neutral gas. The electric power industry plans to promote the use of nuclear power, hydrogen, and ammonia.

Scenarios for the E.U. and U.K. include CCS/CCUS, DACCS, and forest absorption as negative-emission technologies. CCS/CCUS technologies are needed to capture, store, and utilize CO_2 that cannot be reduced. Developing and applying these technologies as well as reducing their costs is extremely important. This will provide an opportunity to play a major role for the energy industry, which owns places to store captured CO_2 and technologies to utilize it.

Topic 2 | Formulating JAPEX2050

JAPEX formulated JAPEX2050 as a long-term policy for the low-carbon society to come. What impressed you during discussions held at the Board of Directors meetings?

The original plan, to realize a carbon-neutral society, increased the prominence of the renewable energy business and CCS/CCUS, an important technology that is a strength of JAPEX. The oil and natural gas E&P Business, which we have operated since our founding, was only briefly touched on. During discussions at the Board of Directors meetings, we fully understood the importance of CCS/CCUS as a long-term strategic technology, and the opinion emerged to emphasize the importance of the LNG supply and gas-fired electric power business, in addition to petroleum, as the need for alternative fuels during the transition period will be robust. In addition, the opinion emerged that we will need to explain the new technology of CCS/CCUS in an easy-to-understand way.

After making the tough decision to end its two projects in Canada, JAPEX entered a new era. The recently announced JAPEX2050 is a wonderful long-term strategy that clarifies JAPEX's long-term vision and clearly positions its short-term mission to contribute to the oil supply and the switch to natural gas during the transition period. Because global trends are moving swiftly, I would like JAPEX to aim to create a more detailed and specific roadmap by regularly revising the strategy going forward.

What responsibilities and roles will JAPEX need to fulfill to realize a carbon-neutral society by 2050?

We take energy for granted when it's always available, but we recognize its importance during emergencies. The major upheaval that carbon neutrality will entail is on par with those of the two oil shocks and the 2011 Great East Japan Earthquake, but the major difference is that it will be a major challenge continuing over the next 30 years to 2050.

The basis of Japan's energy policy is Energy security, Economic efficiency, Environment and Safety (3E+S), and JAPEX has undertaken the one link of energy security since its foundation. From the perspective of 3E+S, no source of energy is perfect. In addition, the reality is that the development of new technologies is highly uncertain. Furthermore, Japan has no regional connectivity for electric power networks and gas pipelines, meaning the international energy situation is also unstable. The new JAPEX business scope will help realize a diverse energy portfolio for Japan, including renewable energy and the use of decarbonized fossil fuels, through the expansion of renewable energy business and the development of such new technologies as CCS/CCUS in addition to a stable supply of the oil and natural gas needed by Japan.

Governments and companies are in the middle of trial and error. It will be important for JAPEX to use its technological and organizational capabilities to set out its own GHG emission reduction targets, act as a bridge for decarbonization while supporting an energy transformation in Japan and the rest of Asia from a long-term perspective, and leverage its strengths.

I look forward to JAPEX achieving major progress as a leading company responsible for technologies to decarbonize fossil fuels and as a comprehensive energy company that contributes to the energy transformation in Japan and the rest of Asia.

Climate Change Response

Policy on Climate Change Response

National governments around the world, including Japan, have one after the other announced the goal of reaching carbon neutrality by 2050. In the last few years, there has been a huge increase in the number of energy companies in Japan and overseas announcing their target of achieving net zero by 2050. In this and other ways, the strengthening of climate change response efforts has been accelerating globally.

JAPEX positions climate change response as the top priority of management and formulated its carbon-neutral policy JAPEX2050 in May 2021. We promote initiatives to further expand business to contribute to the realization of a carbon-neutral society and achieve net zero GHG emissions by 2050 in our own operations. In addition, we will continue to formulate strategies based on analyses of scenarios in line with the TCFD recommendations,* strengthen internal processes (including governance systems and risk management), and strive to further enhance disclosure.

Matters to Be Disclosed in Line with the TCFD Recommendations

Governance

- Describe the board's oversight of climate-related risks and opportunities.
- Describe management's role in assessing and managing climate-related risks and opportunities.

Strategy

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.
- Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
- Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

Risk Management

- Describe the organization's processes for identifying and assessing climate-related risks.
- Describe the organization's processes for managing climate-related risks.
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.

Metrics and Targets

- Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
- Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.
- Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

* Recommendations aimed at facilitating information disclosure with regard to the financial impact of climate change that were issued in 2017 by the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board (consisting of central bank representatives and financial authorities from major economic powers)

Message

Managing Executive Officer's Message Aiming to Ensure Both a Stable Energy Supply and Climate Change Response

NAKAJIMA Toshiaki, Managing Executive Officer
In charge of Corporate Strategy Dept., Corporate Communication Office

The U.N. adopted the Sustainable Development Goals (SDGs) in 2015 and, in 2016, the Paris Agreement came into force. Informed by these developments and guided by its mission of ensuring a stable energy supply, JAPEX formulated its Long-term Vision 2030 in 2018. The main purpose is to play a proactive role in solving the global issue of decarbonization, one of the 17 SDGs. We strive to reduce CO_2 emissions in our businesses and have outlined a policy to create and expand new businesses in environmentally friendly non-E&P fields, such as renewable energy and practical applications for technologies to offset CO_2 emissions using the Company's expertise.

We recognize that it remains critical to achieve the SDG for providing sufficient energy to the entire world; even as society's demand for swifter action on global warming grows stronger by the day. Amid this situation, JAPEX has formulated and announced JAPEX2050 to further enhance its Long-term Vision 2030.

When formulating JAPEX2050, we conducted a study using analysis results based on the IEA's sustainable development scenario*[1] regarding the risks and opportunities for the Company's businesses under our assumption that oil and natural gas will remain a major energy source moving forward. Effectively utilizing fossil resources through the widespread adoption of CCS/CCUS is a promising method to achieve both SDG 7 (Ensure access to affordable, reliable, sustainable and modern energy for all) and SDG 13 (Take urgent action to combat climate change and its impacts). We reaffirmed that expanding renewable energy businesses and accelerating initiatives to commercialize CCS/CCUS will help solve social issues and enhance the sustainability of our businesses.

The essence of global warming countermeasures is reducing GHG emissions. A carbon-neutral (CN) society does not necessarily mean that use of fossil resources will be zero. JAPEX aims to supply clean fossil energy by combining CCS/CCUS with use of energy-efficient fossil resources in addition to conserving energy and expanding renewable energy. We intend to help achieve a CN society and build a foundation for supplying and using new energy that fulfills the needs for supply stability, economic feasibility, and environmental protection.

In addition, in line with this idea, JAPEX strives to enhance its disclosures related to governance, strategy, risk management, and metrics and targets in accordance with the TCFD recommendations.

Specifically, we upgraded our internal execution systems, including the Sustainability Committee and Risk Management Committee. We clarified the process for providing the content of these committees' discussions related to risk management and strategies, including climate change response, to inform oversight and decision making at the Board of Directors. In addition, regarding metrics and targets related to global warming countermeasures, we set quantitative targets for the IEA's 1.5°C scenario*[2] in JAPEX2050.

JAPEX continually strives to enhance its disclosure going forward and will continue to monitor its progress toward its targets while actively releasing information, including answers to the CDP's questionnaires.

*1 Sustainable Development Scenario (SDS): A scenario in which the increase in average global temperature is held well below 2°C compared with the preindustrial level and efforts are made to hold it down to 1.5°C
*2 Net Zero Emissions by 2050 (NZE2050): A scenario in which net zero CO_2 emissions are achieved by 2050

Climate Change Response

Status of Climate Change Response in Line with TCFD Recommendations

Governance

Climate change response is the priority of JAPEX's management, and we have built a system for appropriate decision making under the supervision of the Board of Directors.

Key matters for business execution, including climate change response, are deliberated at the Executive Committee and various other committees before being resolved by or reported to the Board of Directors. Key matters for execution, including climate change response and other medium- to long-term policies and plans, are subject to resolution by the Board of Directors. The carbon-neutral direction and objective JAPEX2050 announced in May 2021, the Long-term Vision 2030 announced in fiscal 2018, and the Medium-term Business Plan (2018–2022) were all matters resolved by the Board of Directors. In addition, the status of the Medium-term Business Plan, GHG emission reduction results, ESG external evaluation results, ESG activity status, and other such information is reported every year to the Board of Directors.

Climate change response is also addressed by the Sustainability Committee, Risk Management Committee, and Investment Evaluation Committee in addition to the Executive Committee. We have constructed a PDCA cycle for climate change response through deliberations at and reports to various committees as well as data collaboration and integrated management among project departments and various committees.

Reference: Governance Structure P.44

Main Treatment of Climate Change Response at Various Committees

Committee	Main issue (Matters inside parentheses are those related to climate change addressed within the past year)	Frequency of action
Board of Directors	Resolution and report of key matters for major business execution related to climate change response (resolution of JAPEX2050, progress report for Medium-term Business Plan, risk matrix report, yearly ESG activity report, etc.)	Around 5 to 10 times per year
Executive Committee	Deliberation of key matters for business execution related to climate change response (deliberation of JAPEX2050, follow-up deliberation of Medium-term Business Plan)	Around 2 times per year
Sustainability Committee	Deliberation of Corporate Vision, long-term vision, Medium-term Business Plan, and basic policies related to ESG (deliberation of JAPEX2050)	Around 10 times per year
Risk Management Committee	Broad evaluation and management of management risks, including climate change response, monitoring of individual businesses,*1 and deliberation and report of countermeasures for various issues (deliberation of risk matrix, report of results for GHG emission targets)	Around 3 times per year
Investment Evaluation Committee	Deliberation of risks*2 for major investments and the appropriateness of investments	Convened as appropriate

*1 Such as carbon tax trends in operating regions and GHG emission results at sites

*2 If carbon tax and GHG emission regulations emerge, we evaluate those impacts, and even if they do not emerge, we evaluate the impact based on internal carbon pricing.

*3 Stated Policies Scenario: A scenario predicated on currently announced government policies coming into force

Strategy

To handle fossil resources, JAPEX has positioned climate change response as a key matter in the consideration of business strategies. To evaluate the medium- to long-term impact that climate change will have on the Company's businesses, we have conducted scenario analyses since fiscal 2019.

To quantitatively evaluate the impact that transition risks, which are the main climate change risks for JAPEX, will have on our medium- to long-term earnings, we conducted a scenario analysis in fiscal 2020 with parameters set for the carbon price and oil and gas prices announced by the IEA in SDS and STEPS.*3 (Please refer to the table entitled "Main Climate Change Risks that Affect JAPEX and Countermeasures" on page 17.)

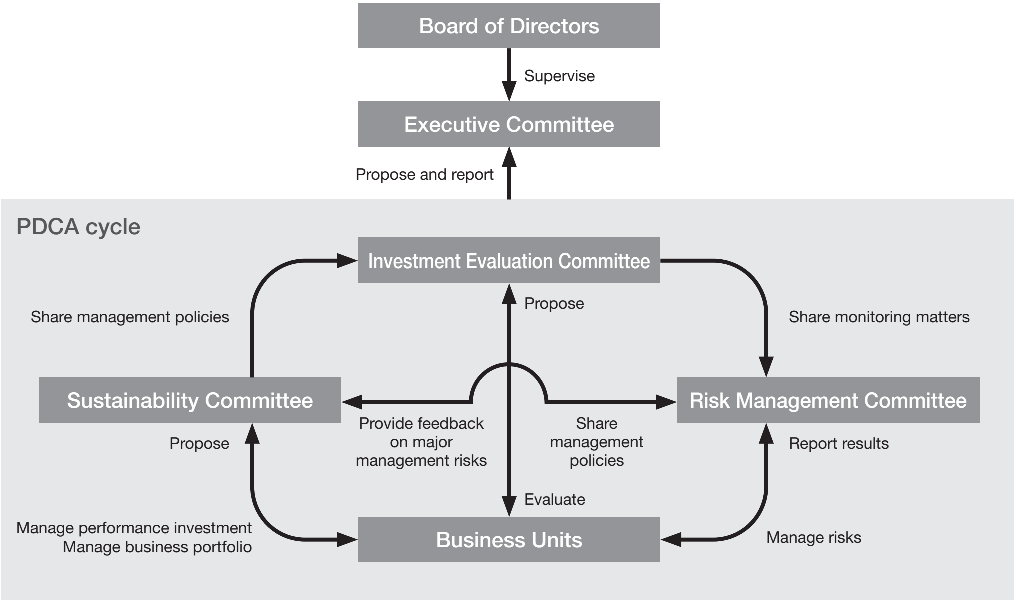
Under the new Medium-term Business Plan currently under consideration, we conduct scenario analyses based on NZE2050, which is a scenario in which net zero CO_2 emissions are achieved by 2050.

In addition, we determined that maintaining the base case of USD60 per barrel for the crude oil CIF price (JCC📖), which is the assumption based on the current Medium-term Business Plan, is a big risk for management, and we therefore lowered it to USD50 per barrel. As a result of a reevaluation of each business asset based on the changed oil price assumption, we recorded an impairment loss of ¥16.3 billion for a portion of business assets in fiscal 2020.

Going forward, we aim to build a resilient business portfolio in consideration of the effects of climate change by regularly conducting scenario analyses.

Reference: JAPEX2050 P.10

PDCA Cycle Related to Climate Change



Climate Change Response

▼ Main Climate Change Risks that Affect JAPEX and Countermeasures

Risk categories		Impact	Expected timing	Countermeasures
Transition Risks	Policy and Legal Risks	Increase in additional expenses due to carbon taxes and other environmental laws and regulations	Medium term	• Construction of a resilient business portfolio by conducting multiple scenario analyses during the planning stage • Evaluation of transition risks through ICP during the investment stage • GHG emission reduction based on the net zero target by 2050
	Market and Technology Risks	Decrease in profit due to lower oil and gas demand and lower prices	Long term	
	Reputation Risk	Divestment from E&P Business	Medium term	
Physical Risks	Acute Risks	Impacts on onshore and offshore facilities due to extreme changes in weather	Medium term	• Evaluation of short-term weather disaster risks using hazard maps

Note: Medium term is five or fewer years and long term is over five years.

Risk Management

JAPEX manages climate change risks within its integrated risk management, which is a process for identifying and evaluating Company-wide risks. For details on integrated risk management, see page 41. Within the risk matrix created based on the impact and probability of risks, we positioned climate change risks as major risks with a large impact, and list them as business risks in our securities report.

In addition, we manage climate change risks in each risk management process, including the identification of and response to medium- to long-term management issues, management of risks in existing major projects, and evaluation of investment in new projects.

Reference: Risk Management P.41

Metrics and Targets

JAPEX Group's GHG Emission Reduction Targets

Under JAPEX2050 announced in May 2021, we established quantitative targets for 2050 and fiscal 2030 for GHG emissions (Scope 1+2) in our own operations.

- 2050: Achieve net zero
- FY2030: Reduce GHG emissions intensity (Scope 1+2) in our operation bases 40% compared with fiscal 2019

In addition, regarding emissions in our own supply chain (Scope 3), we established qualitative targets where we aim to strengthen business fields that contribute to emission reductions.

Scope 1+2 Emission Intensity

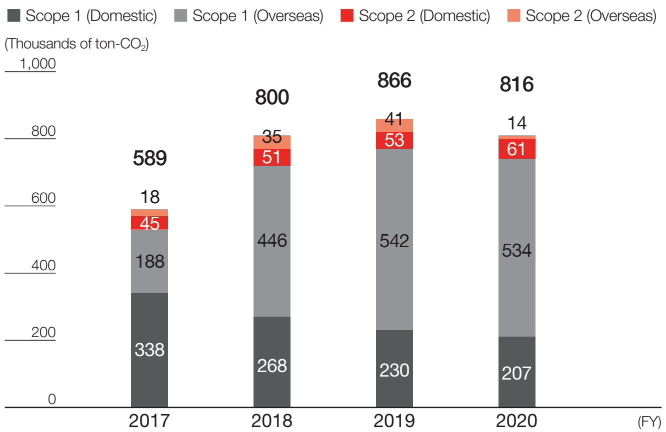
Intensity in fiscal 2020 for Scope 1+2 was 3.44 t-CO_2/TJ, a 13% reduction from the base year of fiscal 2019. The main reasons for the improvement in intensity were an increase in electric power sold by JAPEX following the start of operations at the Fukushima Natural Gas Power Plant and a decrease in emissions due to lower vent emissions.

Reference: JAPEX2050, GHG Emission Reduction Targets P.11

Scope 1+2 Emission Intensity

FY2019 (base year)	3.97 ton-CO_2/TJ
FY2020	3.44 ton-CO_2/TJ
Reduction ratio (compared with base year)	–13%

▼ Emissions from our own operations (Scope 1+2)



Domestic: JAPEX and its 12 consolidated subsidiaries
Overseas: Japan Canada Oil Sands Ltd. (JACOS)

Scope 3 Emissions

Starting with our FY2020 results, we have disclosed emissions for each of the 15 Scope 3 categories in our ESG data available on our website. The total emissions for the 15 Scope 3 emissions in fiscal 2020 were 16,510 thousand tons-CO_2. Category 11 emissions (use of sold products) were 15,720 thousand tons-CO_2, accounting for 95% of all Scope 3 emissions.

We will continue striving to reduce emissions by establishing new technologies and supply energy with low environmental burden.

ESG Data
https://www.japex.co.jp/en/sustainability/management/esgdata/

Japan Petroleum Development Association Targets

The Japan Petroleum Development Association (JPDA), which JAPEX belongs to, participates in the Japan Business Federation's Commitment to a Low-Carbon Society. JPDA's commitment to a low-carbon society sets the following targets for mining facilities of oil and natural gas development businesses in Japan.

- FY2020 target: Reduce GHG emissions 5% compared with FY2005
- FY2030 target: Reduce GHG emissions 28% compared with FY2013

For the JPDA's fiscal 2020 target, JAPEX was asked to suppress its GHG emissions to under 137 thousand tons-CO_2. Through our emission reduction activities, such as conserving energy at operation sites and reducing vent and flare emissions, our emission results in fiscal 2020 were 127 thousand tons-CO_2, meaning we were able to suppress emissions to below our target.*2 In addition, the entire JPDA's fiscal 2020 emission results decreased 5.2%, compared with fiscal 2005, achieving the fiscal 2020 target.

*1 In line with the base year emissions recalculation of the GHG Protocol, which is an international standard for GHG calculation and reporting, we reflected the end of our JACOS business in fiscal 2021, and for the base year emissions (FY2019) and all fiscal years thereafter, we calculate GHG emission intensity excluding these projects from emissions and energy supply volume.
*2 Because JPDA's targets are limited in scope, JAPEX's total emissions and its emissions within the scope of the JPDA's targets are different figures.

Long-term Vision 2030 and Medium-term Business Plan 2018-2022

In May 2018, we announced our Long-term Vision 2030, which is our growth strategy up to 2030, and our Medium-term Business Plan 2018–2022, which outlines the direction and key initiatives for management and business over a five-year period. In May 2021, we formulated JAPEX2050, which sets out the Company's direction toward realizing a carbon-neutral society by 2050. Under our new environmental recognition, we plan to revise our Medium-term Business Plan within fiscal 2021.

Long-term Vision 2030

Growth to the Comprehensive Energy Company Utilizing Oil and Gas E&P and Its Supply Basis

— Long-term Targets —

- Maintain an RRR of >1 mainly by discovering and promoting new projects in the oil and gas E&P business
- Create new business in environmentally friendly non-E&P fields using the Company's expertise

The Profit Composition JAPEX Aims for in 2030	E&P Business : Non-E&P Business = 6 : 4

Recognizing that oil and natural gas will remain as one of the major energy sources worldwide over the medium to long term, we will continue working hard to ensure a stable energy supply while responding to the changing needs of markets and clients. In addition, we are creating and expanding new businesses in environmentally friendly non-E&P fields using our expertise, such as renewable energy and the practical application of CCS technologies that are expected to help offset CO_2 emissions. In this way, we aim to achieve the profit composition ratio of six to four for E&P to non-E&P business by 2030 and transform our business structure, which is easily affected by volatility in oil prices.

Management Resource Allocation to Realize Our Vision

In line with our financial discipline outlining a debt-to-EBITDA ratio of two or less, we will secure new investment funds and allocate about half of these funds to non-E&P businesses over the medium to long term.

Profit Composition as of FY2020

	FY2019	FY2020	Change
Total of operating profit and equity in earnings of affiliates	¥26.2 billion	¥10.0 billion	(¥16.2) billion
E&P Business	¥37.1 billion	¥3.8 billion	(¥33.2) billion
Infrastructure/Utility Business	(¥5.1) billion	¥11.9 billion	¥17.0 billion
Other	(¥5.7) billion	(¥5.7) billion	(¥0.0) billion

Total operating profit and equity in earnings of affiliates in fiscal 2020 amounted to ¥10.0 billion, a year-on-year decrease of ¥16.2 billion.

Profit rose in the Infrastructure/Utility Business due mainly to one-off gains from rising JEPX trade prices and contributions from electric power sales and regasification contract earnings following the start of operations at the Fukushima Natural Gas Power Plant. However, profit fell in the E&P Business due mainly to the impact of a decrease in crude oil prices.

Moreover, the figures for "Other" in the table above are for earnings related to sales of oil products and subcontracting not included in the E&P Business or the Infrastructure/Utility Business, excluding headquarters administrative expenses.

Medium-term Business Plan 2018-2022

Striving to improve our financial standing and diversify our business base over the first five years to realize our long-term vision

— Medium-term Target —

To realize our vision by 2030, we continue aiming to improve our ROE to 5% or more by fiscal 2022 with the assumed oil CIF price (JCC) of USD60 per barrel.*

* On March 31, 2021, this was lowered from USD60 to USD50.

ROE is a financial indicator that enables the easy integration of the direction of Company-wide business policies and initiatives aimed at achieving targets. A benefit is that it is easy for all employees to be aware of improvement in profitability in each business and relevant operations while understanding ROE as a Company-wide achievement. The figure of 5% ROE aimed to recover profit and improve finances that deteriorated in line with the decline in crude oil prices when the current Medium-term Business Plan was formulated. It is a must-meet target, positioned as a minimum condition for the Company to survive amid a business environment where JCC is USD60 per barrel. In addition, this is not dependent on financial leverage. We aim to achieve our overall target ROE by enhancing asset efficiency or profit margin for each Project Department and implementing initiatives that have appropriate KGIs and KPIs while maintaining appropriate financial discipline.

Results for the Medium-term Business Plan Period

	FY2018	FY2019	FY2020
ROE	3.5%	6.5%	–0.7%
Ordinary profit	¥12.5 billion	¥32.6 billion	¥10.0 billion
Extraordinary income (loss)	¥0.5 billion	(¥0.7) billion	(¥17.3) billion
Profit (loss) attributable to owners of parent	¥14.7 billion	¥26.8 billion	(¥2.7) billion

As of March 31, 2021, we lowered the medium- to long-term oil CIF price assumption from JCC USD60 per barrel to USD50 per barrel in light of the recent business environment, such as the effects of the COVID-19 pandemic and progress on global decarbonization. We conducted a reevaluation of business assets of our domestic oil and gas fields based mainly on the lowering of the assumed oil price. As a result, we recorded an impairment loss related to a portion of business assets as extraordinary loss, and profit attributable to owners of parent in fiscal 2020 was a ¥2.7 billion loss.

Results and Forecasts by Business for Medium-term Business Plan Targets

E&P Business

Long-term Target	Maintain “RRR>1”
Medium-term Targets	Acquire new overseas interests while maintaining or increasing reserves in Japan
FY2020 Results	Proved reserves decreased due mainly to a lowering of the assumed oil price in fiscal 2020.

FY2018–2019 Results	FY2020 Results	FY2021 Forecast (including some results)
Add to medium- to long-term domestic reserves • Started production of the 1,900m layer of the Iwafune-oki Oil and Gas Field in Niigata • Finished exploratory drilling offshore Hidaka in Hokkaido **Promote overseas projects and enhance profitability** • Commenced development work to increase production at the Iraq Garraf Project to 230,000 bbl/d • Transitioned to 20,000 bbl/d stable production operations at the Canada Oil Sands Project • Commenced phase 2 production operations at the TSB Gas Field Complex at the Indonesia Kangean Project • Commenced development at the U.K. North Sea Seagull Project **Revise our asset portfolio** • Transferred interests for Hangingstone 3.75 section, Canada an asset in the Oil Sands Project	**Maintain and increase domestic production volume** • Commenced crude oil production at the shallow reservoir of the Yufutsu Field in Hokkaido **Promote overseas projects and enhance profitability** • Iraq Garraf Oil Field: Continued development operations aimed at increasing production • U.K. North Sea Seagull Project: Continued development operations Note: The forecast for the start of overseas projects currently in development is unforeseeable due mainly to the pandemic.	**Maintain and increase domestic production volume** • Promoting additional development surrounding the Katakai Gas Field in Niigata **Revise our asset portfolio** • Transferred interests of the Canada Shale Gas Project • Ended the Canada Oil Sands Project **Continue to consider additional development and new exploration in Japan, the acquisition of new interests and maintenance of existing businesses overseas, and the optimization of our portfolio.**

Infrastructure/Utility Business

Long-term Target	Promote supply of energy with a low environmental impact
Medium-term Targets	Annual natural gas transaction volume in Japan: 1.6 million tons (LNG equivalent) Electricity sales volume: 2.8 billion kWh
FY2020 Results	FY2020 natural gas transaction volume in Japan: 1.48 million tons Electricity sales volume: 3.0 billion kWh

FY2018–2019 Results	FY2020 Results	FY2021 Forecast (including some results)
Natural gas supply in Japan • Established the LNG Marketing and Procurement Office/Started up the Singapore Branch **Renewable energy development** • Established the Renewable Energy Business Dept.	**Construct a business base that is resilient to effects of oil prices** • Commenced full operations at the Fukushima Natural Gas Power Plant **Renewable energy development** • Participated in the study of the Chofu Biomass Power Project • Participated in three consortiums to consider large-scale offshore wind projects in Japan	**Renewable energy development** • Decided to commercialize the Chofu Biomass Power Project • Established an investment fund for solar power projects in Japan **Continue to consider seizing new and additional gas demand, procuring competitive LNG, and participating in and acquiring renewable energy projects**

New Business Development

Long-term Target	Generate environmentally friendly new business
Medium-term Targets	Develop a new business model and identify new business seeds
FY2020 Results	Promoted pilot tests aimed at achieving practical application of CCS/CCUS technologies and considered a new business model for supplying LNG as a new business seed.

FY2018–2019 Results	FY2020 Results	FY2021 Forecast (including some results)
Development and practical application of next-generation technologies • Successfully injected a cumulative 0.3 million tons of CO_2 in the CCS demonstration project in Tomakomai **Develop a new business model** • The study group aiming to implement the LNG Bunkering📖 framework at Tomakomai Port **Identifying unique business seeds** • Established the New Business Promotion Dept. • Began considering commercializing SAF* from used cooking oil	**Identifying unique business seeds** • Established the Environmental Business Promotion Dept., a specialized business creation department related to environmental technologies • Participated in public-private review committees related to carbon-neutral industries hosted by Niigata Prefecture; the Ministry of Land, Infrastructure, Transport and Tourism; and the Ministry of the Economy, Trade and Industry • Began contracted survey related to the possibility of an inter-industry alliance for carbon recycling businesses in the Tomakomai area • Participated in review meetings for a new LNG supply model	**Plan to establish new targets and readjust existing initiatives in line with the Company’s JAPEX2050 policies aimed at realizing a carbon-neutral society**

* Sustainable aviation fuel (SAF) is jet fuel produced from sustainable supply sources that have low CO_2 emissions through the process from production and collection of raw materials to its ignition.

Finance & Accounting Dept. Director's Message

Structuring an Efficient Balance Sheet and Implementing a Financial Strategy Focused on Decarbonization

YAMASHITA Michiro
Director, Managing Executive Officer
Finance & Accounting Dept.

Looking Back on Our Business Results

Fiscal 2020 began amid such chaos as the WTI price temporarily going negative due to market disruptions and a rapid decline in energy demand caused by the COVID-19 pandemic. Crude oil prices gradually recovered due to the agreement in May among oil-producing countries to cut production, but subsequently the energy industry faced unprecedented volatility from the end of 2020 into the start of 2021. This included a shift, with rapid rises in LNG spot prices and the Japan Electric Power Exchange (JEPX) price.

The average oil CIF (JCC) price during the fiscal year fell a sharp 37% from USD68.11 per barrel in fiscal 2019 to USD42.91 in fiscal 2020. Profit fell due to this and a drop in demand from some domestic natural gas customers amid stagnant economic activity. In addition, in overseas business too, the COVID-19 pandemic led to various impacts on business performance, such as a swift drop in the sales price of diluted bitumen in Canada and a temporary suspension of production operations at the Garraf Project in Iraq. Combined with the recording of such one-off losses as the aforementioned impairment loss following the reevaluation of domestic business assets, these events resulted in a ¥2.7 billion loss attributable to owners of parent.

On the other hand, since April 2020, the Fukushima Natural Gas Power Plant started commercial operations, and net sales of the Infrastructure/Utility Business reached ¥100.0 billion, with contributions from the electric power business and LNG regasification commissioning operations underpinning the Company's results amid a challenging business environment. I believe this positive result sprang from initiatives in Soma taken over the eight years since announcing the construction plan of the Soma LNG Receiving Terminal in November 2012.

Due to these factors, we achieved EBITDA in fiscal 2020 of ¥37.1 billion.

Balance Sheet Volatility

However, we expect the Group's financial standing to change significantly due to an impairment loss related to domestic business assets in fiscal 2020 and a losses accompanying the conclusion of two businesses in Canada slated to be recorded in fiscal 2021.

In May 2018, JAPEX announced its Long-Term Vision 2030 and Medium-term Business Plan 2018–2022. To effect a shift toward a business structure that enables sustainable growth even amid a harsh business environment, such as stagnant crude oil prices, we are working to enhance the profitability of the E&P Business and accelerate investment in the non-E&P field, including the Infrastructure/Utility Business.

JAPEX outlined its vision of the future as "Growth to the Comprehensive Energy Company Utilizing Oil and Gas E&P and its Supply Basis." However, the business environment surrounding the Company has changed much faster than originally envisioned at the time in 2018, due to such factors as the prolonged impacts of the COVID-19 pandemic since early 2020, momentum toward a green recovery of the post-pandemic economy, and rapid developments toward global decarbonization.

Finance & Accounting Dept. Director's Message

Based on these kinds of changes and discussions around carbon pricing, we lowered our medium- to long-term crude oil price forecast, which serves as the base for our business plan, from the original USD60 per barrel to USD50. As a result of a subsequent reevaluation of the Group's major assets, we recorded an impairment loss for domestic business assets. In addition, regarding the Canada Business, because the business environment has drastically changed since the time we decided to invest, we have now decided to divest as part of our effort to optimize our portfolio after conducting a comprehensive verification from various perspectives, such as whether the expected return on invested capital is in line with capital costs, whether there is a risk of assets becoming stranded in the future, and whether the risk exposure is appropriate.

Due to this series of measures, we expect a decrease on the assets side of the balance sheet, mainly in fixed assets, while the decline on the liabilities and net assets side will mainly be interest-bearing debt and equity. As a result, compared with the total assets of ¥624.7 billion as of March 31, 2021, we forecast a change of around ¥200.0 billion.

Investment and Risk Management

We realize that the biggest issues for the Group due to the conclusion of two businesses in Canada from a financial perspective will be strengthening our earnings base to be highly resilient to oil prices and building an efficient balance sheet by restoring our business portfolio. In light of these issues, we are developing new projects in Japan and overseas in the areas of the E&P Business and the Infrastructure/Utility Business. In fields such as CCUS where we can flex our competitive advantages, we are strengthening initiatives aimed at achieving carbon neutrality.

Under the current Medium-term Business Plan, during the period to March 31, 2023, we plan to allocate ¥65.0 billion to new growth investments, but we decided to formulate a new Medium-term Business Plan in fiscal 2021 and to readjust our medium-term cash flow forecast and policy related to the allocation of funds.

As our business portfolio diversifies, we need to understand the capital costs reflecting each business risk and set a hurdle rate. For example, just within the renewable energy field, there is a significant difference in the risk, return, and time until investment is recovered for each type of business, including solar, biomass, and offshore wind. We therefore need to make investment decisions after fully assessing the latent risks of each project and, regarding PDCA cycles after investing, we need to conduct verification more carefully than before and respond in a more timely manner.

In addition, when procuring business funding, we optimize financing by aligning it with the characteristics of each investment. Through the management of assets and liabilities that takes an overarching view of the entire balance sheet, we will maintain a robust and efficient balance sheet that can respond to changes and risks.

JAPEX2050 and Our Financial Strategy

As global decarbonization accelerates, we have seen impressive progress in the field of sustainable finance within the past year. Green finance, sustainability-linked finance and other methods are becoming more common. In December 2020, the International Capital Market Association (ICMA) released the *Climate Transition Finance Handbook*. Realizing that a sufficient supply of funding should be secured for transition-stage initiatives in sectors with high CO_2 emissions that cannot achieve decarbonization in one fell swoop, the ICMA clarified the four requirements needed for transition finance, and the energy sector, including JAPEX, was evaluated as having secured important finance methods.

The rapid emergence of sustainable finance has promoted a rethink of the concepts of corporate finance. Basically, the world has shifted from the traditional corporate finance concept that is decided by procurement capability based on financial credit to an era where companies are also questioned on their sustainability trustworthiness, including transition strategies for decarbonization. It is thought that the superiority or inferiority on that front will have a direct impact on a company's ability to procure funds. We realize that, in line with this, companies will be asked to further enhance their disclosure of non-financial data, including governance and policies on risks and opportunities related to climate change.

Against this backdrop and through the formulation of JAPEX2050, JAPEX has adjusted the direction of its business development and sorted out the responsibilities and issues it should take up with the aim of realizing a carbon-neutral society.

Going forward, we will organize the businesses we need to operate into three categories: green, transition, and innovation. We will continue ensuring the effectiveness of our financial strategies aimed at decarbonization by establishing funding procurement methods aligned with each phase of our business.

Value Creation Through Business Activities

E&P Business

Strengths

- A comprehensive suite of in-house technological capabilities covering the entire spectrum of E&P operations
- Relationships of trust, including with clients, local communities, and oil-producing countries

Risks

- Volatility in the sales prices of oil and natural gas
- Growing difficulties in acquisition of interests
- Rise in exploration and development costs as well as the carbon tax and other environmental response costs

Opportunities

- Acquisition of new projects in key overseas regions
- Pursuit of remaining potential in oil and gas fields in Japan
- Increase in opportunities to enter markets due to liquidizing overseas E&P assets

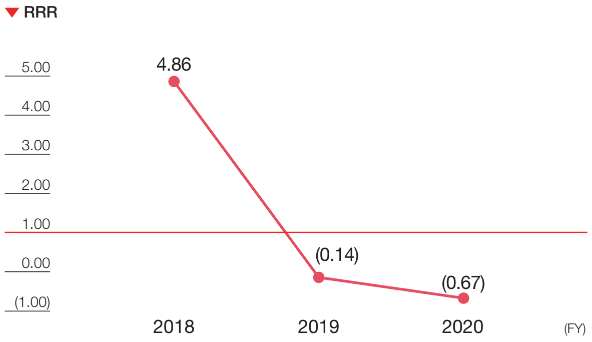
Long-term Target

Maintain “RRR>1”

FY2022 Targets

- Additional development and new exploration in Japan
- Acquiring new interests overseas and optimizing our portfolio

Progress



Net Production Volume and Net Proved Reserves

Net Production Volume (FY2020 Results)

Natural gas	25.3 thousand boe/d
Crude oil	36.3 thousand boe/d
Total	61.7 thousand boe/d

Net Proved Reserves (As of March 31, 2021)

Japan	51 million boe
Overseas	266 million boe
Total	317 million boe

Units
boe: barrels of oil equivalent
boe/d: barrels of oil equivalent per day

E&P Business

The reserve replacement ratio (RRR) indicates the extent we successfully replaced oil and natural gas reserves that decreased due to production. We outlined the long-term target of maintaining an RRR above 1.0 over the medium to long term and have been promoting medium- to long-term initiatives aimed at maintaining or increasing our reserves.

FY2020 Highlights in the E&P Business

Japan

- Commenced crude oil production from shallow reservoir of the Yufutsu Oil and Gas Field in Hokkaido Prefecture (June 2020)

Commercial Production Commencement of Crude Oil from Shallow Reservoir at the Yufutsu Oil and Gas Field in Hokkaido
https://www.japex.co.jp/en/news/detail/20200626_01/

Overseas

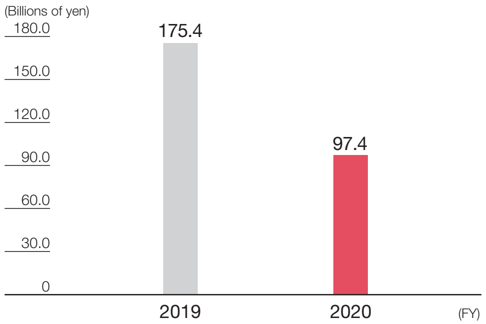
- Garraf Oil Field in Iraq: Promoting development work to increase crude oil production (Since April 2018)
- Seagull Project in the U.K. North Sea: Promoting development work to start production (Since March 2019)

In Japan, we started development work on the Takinoue Formation in 2017 when it was a proved but undeveloped shallow reservoir situated above the existing crude oil and natural gas production reservoir of the Yufutsu Oil and Gas Field (Tomakomai, Hokkaido). After conducting production tests and test operations of facilities, we began commercial production in June 2020.

Overseas, at the Garraf Oil Field in Iraq, we temporarily suspended development and production work due to effects of the COVID-19 pandemic but have since resumed development work. In addition, at the Seagull Field in the U.K. North Sea, we have conducted preparation work for well drilling, construction of seafloor production equipment, and renovation work on existing facilities.

Net Sales and Operating Profit of the E&P Business

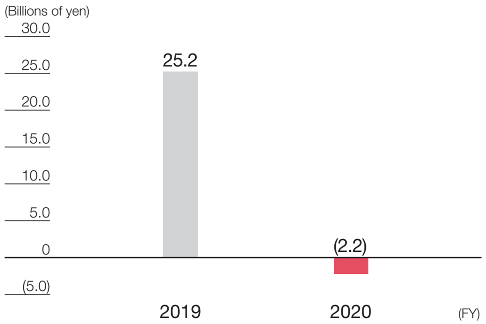
Net Sales



Factors for Change

Decrease in the sales volume of crude oil (overseas), purchased crude oil, and diluted bitumen as well as a drop in sales prices

Operating Profit



Factors for Change

Decrease in sales prices of crude oil, deterioration of profit from diluted bitumen sales due to WCS (Western Canadian Select) differential, decrease in sales volume due to depletion in domestic gas fields, and drop in prices

Policy on Initiatives to Seize Business Opportunities Going Forward

Pursuit of Remaining Potential in Oil and Gas Fields in Japan

With the aim of supplementing our reserves and increasing production volume, we will conduct additional development at existing oil and gas fields and their surrounding areas while leveraging the Group's comprehensive technological capabilities related to its entire E&P Business. Regarding additional development of the Katakai Gas Field in Niigata Prefecture, which was decided in April 2021, we are continuing to move ahead with development work aimed at a swift production start.

In addition, for exploration to discover new oil and gas fields, our policy is to continue promoting activities with an eye toward development of large-scale offshore oil and gas fields.

Acquisition of New Projects in Key Overseas Regions

We will steadily promote projects that are currently in production or in development. We will also pursue opportunities to acquire and invest in new mining interests, leveraging our wide range of technologies and knowledge cultivated through our E&P Business, including development of unconventional resources. Our policy is to prepare for uncertainty, including volatility in crude oil prices, and invest in solid E&P assets with a low risk of becoming stranded, such as assets that are expected to quickly contribute to profit.

We aim to ensure a stable energy supply with a low environmental burden over the medium to long term. We have an eye toward introducing CCS/CCUS to projects we participate in, as well as preferentially considering the acquisition of new natural gas projects.

In addition, from the perspective of improving asset efficiency, we will continue working to construct an optimal portfolio based on economic viability and environmental concerns.

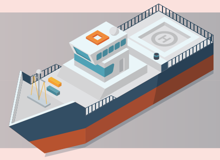
E&P Business

JAPEX's Comprehensive Technological Capabilities across the Entire E&P Business

In the oil and gas industry, exploration and production (E&P) refers to the phases of exploration, development, and production. Since JAPEX's founding in 1955 as a specialized upstream company, we have focused on oil and gas E&P. To transport and supply the oil and gas JAPEX has produced or procured, we have also built up our own supply network in Japan. JAPEX's strength lies in the Group's ability to handle each step of E&P.

Flow of Oil and Gas E&P Business

Exploration

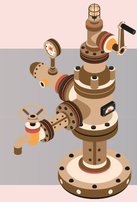


- **Surface Geologic Surveys:** In areas targeted for exploration and their surrounding regions, we conduct surveys of their geologic structure, strata, petrophysical properties, and geochemical characteristics.
- **Geophysical Exploration:** We assess the geologic structure through a seismic survey using electromagnetic waves and artificial vibrations underground.
- **Drilling of Exploration Wells:** Based on analyses of the geophysical exploration and surface survey, we drill test wells at promising sites to confirm the presence of oil and gas.
- **Evaluation:** If the test drilling is successful, to confirm the spread of the oil and gas and the scale of the reserves, we drill exploratory and evaluation wells to conduct more detailed evaluations of the reserves.

Development

- **Front End Engineering Design (FEED):** Development plans are formulated, and necessary facilities are designed.
- **Drilling of production wells:** Production wells are drilled in accordance with production plans.
- **Construction of facilities:** Facilities are constructed for processing, storing and transporting oil and natural gas.

Production



- **Production:** Petroleum gas is produced from production wells.
- **Separation and Impurity Processing:** We process petroleum as necessary and transport and sell it.
- **Enhanced Oil Recovery (EOR):** We apply this to production wells where production efficiency has declined with the age since the start of production.

JAPEX's Main Advanced E&P Technologies

3D Seismic Technology & Seismic Geomorphology

These technologies analyze the distribution of reservoirs in three dimensions and have been used practically since the early 2000s following the growth of 3D seismic surveys and the application of sedimentology. We analyze in detail such data as the amplitude, waveform, and frequency gained from 3D seismic survey data regarding the distribution of reservoirs, which was previously estimated using one- or two-dimensional data. We then visualize the distribution of reservoirs and conduct analyses that combine the concepts of sedimentology and sequence stratigraphy to recreate the geography at the time of reservoir deposition, such as rivers, abyssal fans, and carbonate reefs, and thereby estimate the distribution of the reservoirs. By accurately and precisely estimating reservoir distributions, we lower exploration risks.

Geologic Modeling

We create geologic models based on data gathered from exploration and other various surveys. We use such data as geologic structures, reservoir rock characteristics, and oil and gas distribution to create three-dimensional models on computers, estimate underground situations, and evaluate oil and gas reserves. In addition, we are now able to create more sophisticated geologic models by employing recent geostatistical methods.

In part by drilling development wells, we gain underground data and create more detailed geologic models, which are used to determine sites for drilling new development and production wells as well as former wellheads.

Extended Reach Drilling (ERD)

Extended Reach Drilling (ERD) is a technology for drilling longer horizontal wells at a high inclination angle to reach underground oil and gas deposits further away from the drilling spot, instead of drilling wells vertically. For instance, the technology enables us to locate and produce oil or gas from deposits below the seabed by diagonally drilling horizontal wells from the land. In addition, by drilling horizontally into vertically shallow reservoirs, we can efficiently extract oil and gas.

Geomechanics

Geomechanics is a discipline to predict and control mechanical deformation and failure of underground rock. We collect various data during drilling and injection operations to evaluate the mechanical state of underground rock and its changes over time based on geomechanics and thereby ensure safe and efficient oil and gas development.

Reservoir Simulation

The reservoir simulation uses reservoir models that visualize the presence and movement of oil and gas based on geologic models to create future predictions through numerical calculations on computers. By carefully analyzing the safest and most economical recovery methods for reservoirs, the technology identifies projects that can be proposed as efficient and effective development plans.

Advanced Production Engineering (PE)

This technology covers the phases from drilling wells to production in the production engineering (PE) field, which aims to improve production from each well for efficient oil and gas recovery.

JAPEX is currently applying the following PE mainly to the development and production of domestic oil and gas fields.

- **Artificial lift:** Producing crude oil using pumps and other machinery
- **Well stimulation:** Acidizing and fracturing
- **Sand control:** Preventing the flow of sand into wells during extraction by plugging gravel that has been artificially sized into the wells

Infrastructure/Utility Business

Strengths

- JAPEX's own domestic natural gas supply chain connecting gas fields in production and LNG terminals through a high-pressure gas pipeline network
- An infrastructure and operational framework that strives to reduce risks related to major accidents and injuries
- Gas fields in Japan with underground storage capacity in case of supply-demand adjustments and emergencies

Risks

- Decreasing energy demand due to the declining population in Japan and subsequent decreases in sales volume of natural gas and electricity
- Intensifying competition in the Japanese market due to the liberalization of the electric power and gas businesses

Opportunities

- Expanding sales of natural gas due to the switching of fuels (Introducing natural gas with the aim of GHG emission reduction for industrial clients)
- Expanding the scope of services through contract businesses that utilize existing infrastructure and supply of energy with a low environmental impact

Long-term Target

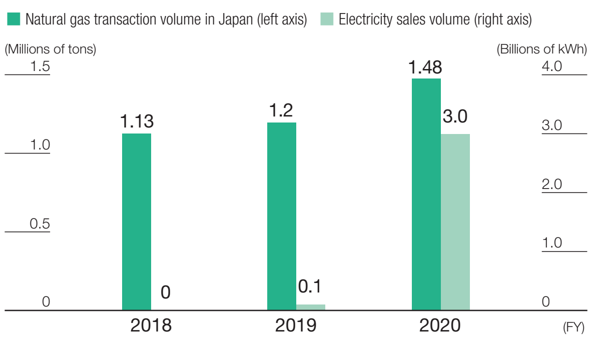
Promote supply of energy with a low environmental impact

FY2022 Targets

- Annual natural gas transaction volume in Japan: **1.6** million tons (LNG equivalent)
- Electricity sales volume: **2.8** billion kWh

Progress

▼ Natural gas transaction volume and electricity sales volume in Japan



Main Facilities Comprising the Energy Supply Chain

Domestic Natural Gas Supply Infrastructure

High-Pressure Gas Pipeline	Total Length of Around **800** km
LNG Terminals	Soma LNG Terminal Yufutsu LNG Receiving Terminal NIHONKAI LNG CO., LTD. Niigata Terminal

Power Generation Facility Capacity

Natural gas-fired power generation	Fukushima Natural Gas Power Plant (owned 100% share) Total output **1,180,000** kW
Solar power generation	Hokkaido District Office (JAPEX's share: 100%) Total output **1,800** kW
	Solar Power Tomakomai Co., Ltd. (JAPEX's share: 20%) Total output **13,000** kW

Infrastructure/Utility Business

We aim to expand business by encouraging use of energy with a low environmental impact, such as supplying electric power fueled by LNG and developing renewable energy in addition to a stable supply of natural gas using diverse supply methods, including tank trucks and tank containers on railways as well as our own infrastructure, such as gas pipelines and LNG terminals.

FY2020 Highlights

- Commenced full-scale commercial operations of the Fukushima Natural Gas Power Plant (August 2020)

  Commercial Operation Commencement of FGP Fukushima Natural Gas Power Plant No.2 Unit
  https://www.japex.co.jp/en/news/detail/20200824_01/

- Participated in the study of the Chofu Biomass Power Generation Project (December 2020)

  Participation in the Study of the Chofu Biomass Power Generation Project
  https://www.japex.co.jp/en/news/detail/20201211_02/

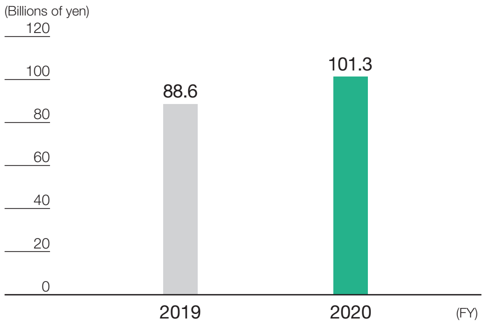
- Participated in three consortiums to study large-scale offshore wind projects in Japan

The natural gas supply in Japan maintains unified supply of domestic natural gas and LNG year-round. In addition, we are working to increase our gas sales volume mainly by developing new suppliers and supporting the cultivation of demand from city gas companies, JAPEX's main clients.

As for natural gas-fired power generation, Fukushima Gas Power Co., Ltd. (in which JAPEX invests) began full commercial operations of the Fukushima Natural Gas Power Plant in August 2020. In addition, JAPEX began selling electric power it gets from this power plant, achieving a total of 3.0 billion kWh in electricity sales volume, above its Medium-term Business Plan target of 2.8 billion kWh. We also began full regasification contract operations related to supplying LNG fuel for the power plant. These activities all greatly contributed to profit in fiscal 2020.

Net Sales and Operating Profit of the Infrastructure/Utility Business

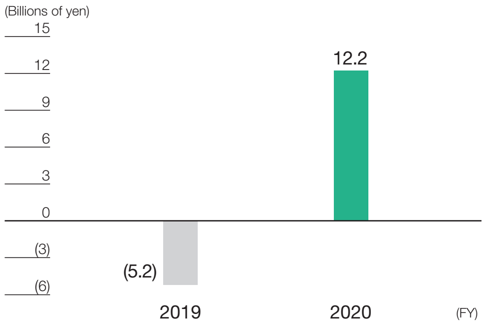
▼ Net Sales



Factors for Change

Increase in regasification contract earnings and sales volume of electricity following the start of commercial operations at the Fukushima Natural Gas Power Plant

▼ Operating Profit



Factors for Change

Increase in sales volume of electricity and regasification contract earnings, gain on procurement of LNG for the Gas Business and power generation fuel, and one-off gains from a surge in JEPX trade prices

Policy on Initiatives to Seize Business Opportunities Going Forward

Expansion of Natural Gas Sales by Promoting Switching of Fuels

Leveraging our expertise and track record operating our own domestic natural gas supply chain, we aim to increase the sales volume of gas by cultivating demand for natural gas, such as by rolling out diverse supply methods for LNG and encouraging industrial clients to switch fuels from coal and heavy oil to natural gas. In addition, we will realize a competitive energy supply through LNG procurement combining long-term and spot contracts. We will continue working to procure and supply carbon-neutral LNG in line with client needs.

Expansion of an Energy Supply with a Low Environmental Impact

Natural Gas-Fired Power Generation

We will promote the supply of electric power that is inexpensive and has a low environmental impact through the stable supply of electricity gained from the Fukushima Natural Gas Power Plant. Over the long term, we will continue pursuing business opportunities with an eye on methods of helping to realize a carbon-neutral society, such as constructing next-generation fire-powered power generation units that apply CCS/CCUS and the possibility of utilizing fuels that do not emit CO_2 when burned, such as hydrogen and ammonia.

Development of Renewable Energy

Striving to expand the supply of electric power with a low environmental impact, we aim to steadily promote projects currently in progress and add new projects, especially those for offshore wind power and biomass power. As for offshore wind power, we are working on commercialization and the acquisition of new projects by leveraging know-how gained from experience in maintaining and managing offshore platforms, such as the Iwafune-oki Oil and Gas Field in Niigata Prefecture, and strong relationships with local communities as well as expertise, including geologic data accumulated over our many years in the E&P Business. And, as for biomass power, we work to study feasibility and acquire new projects leveraging the expertise and know-how gained from constructing and operating natural gas power plants. We will continue considering biomass power that realizes negative emissions by combining with CCUS/CCS (BECCS).

Infrastructure/Utility Business

JAPEX's Initiatives to Realize a Stable Energy Supply

With its mission to contribute to society through a stable energy supply, JAPEX is working to assure the redundancy and earthquake-resistance of its facilities and upgrading its emergency-response systems to steadily provide customers with energy even amid crises.

Going forward, we will continue to ensure a stable energy supply based on the Company's strengths of a diverse gas supply network and a resilient infrastructure and operation system, which we have built up with the technological capabilities and know-how cultivated through our many years of domestic operations.

Initiatives to Securely, Safely, and Stably Supply Energy

Ensuring Our Stability amid Demand Fluctuations and Crises

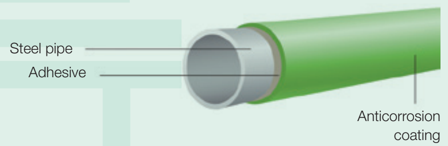
We supply gas into the pipeline through multiple sources, including oil and gas fields located in the Sea of Japan; the Niigata Terminal of Nihonkai LNG Co., Ltd., which we participate in; and our Soma LNG Terminal situated in the Pacific Ocean. By utilizing these sources in a well-balanced way, we enable flexible response to demand volatility and ensure a supply system resilient to disasters, equipment malfunctions, and other adverse events.

In addition, at our Shiunji Gas Field (Shibata City, Niigata), we bring in natural gas produced at other oil and gas fields through the pipeline network and inject and store it underground. This stored natural gas contributes to stable gas supply by being available for utilization during crises and to respond to demand volatility.

Pipeline Characteristics

In our pipelines, we use high tensile-strength steel pipes that are elastic and robustly resilient to internal pressure, external pressure, bends and shocks. They are designed with strength that can withstand major earthquakes and have demonstrated their earthquake resilience during the earthquake offshore Miyagi Prefecture, the Chuetsu earthquakes in Niigata Prefecture, and the Great East Japan Earthquake. In addition, we apply an anticorrosion coating on the surface of buried pipelines and mitigate the risk of natural corrosion by applying electric galvanic protection using an external electric method, achieving long-term use of buried pipelines.

▼ Structure of Steel Pipes



24-Hour, 365-Day Monitoring and Emergency Response

Emergency Response System

We use a remote monitoring and control system to conduct 24-hour, 365-day monitoring that constantly ensures the proper conditions and safety of the Company's pipeline network, supply-related equipment, LNG terminals, and other facilities. In emergencies, we can shut off gas remotely. In addition, we have installed emergency shutoff valves to shut off gas remotely from a monitoring center when there is an abnormality in major valve stations or customers' receiving facilities. At key locations along the pipelines, we install vent towers to safely vent gas within the pipeline as necessary. In these and other ways, we have prepared our facilities to be able to safely respond to unusual events.

Safety Assurance Systems

To constantly assure safety, JAPEX's patrol personnel pay careful attention to daily pipeline patrols, safety inspections of peripheral facilities, inspections for gas leaks, the installation of safety signage and roadside signs, among other measures. We ensure a direct security presence in necessary areas when a disaster occurs, such as torrential rain, heavy snow, and earthquakes. After assuring the safety on the frontlines, we rapidly assess whether there is damage to facilities by conducting patrols along the pipeline and work to restore service.

In addition, when construction work is conducted in areas surrounding pipelines, we work to prevent accidents by visiting the construction sites to avoid injuries caused by insufficient precautions.

Examples of Responses to Natural Disasters

Some JAPEX facilities located along Sendai Bay, which was inundated by the tsunami from the Great East Japan Earthquake on March 11, 2011, suffered severe damage. However, the damage to the pipelines themselves was limited. Even amid this unprecedented disaster, we ardently worked to restore the frontlines, including with surveys of first responders, and facilitated collaboration between the headquarters, district office, and various affiliate companies, we were able to restart the supply of gas to the gas agency of Sendai City on May 23, just 12 days after the earthquake.

In addition, when an earthquake with a magnitude of six struck with an epicenter offshore Fukushima on February 13, 2021, we temporarily suspended the gas supply from the Soma LNG Terminal to ensure safety. By switching to a supply of gas from other sites and taking other measures to respond and swiftly resume service, we were able to minimize supply disruptions for clients.

Nagaoka Gas Transmission Monitoring Center

Strengthening Measures to Realize a Stable Supply: COVID-19 Pandemic Response

At domestic operation sites, we work to prevent infections among operation personnel. This is partly achieved by introducing methods for handover duties that avoid in-person contact and limiting access to the central monitoring control room.

Furthermore, at the Soma LNG Terminal, we implement contactless loading and unloading to minimize contact between terminal personnel and external workers as a way to prevent the spread of infections among coastal LNG vessel personnel, Soma LNG Terminal personnel, and external loading and unloading personnel. In this way, by introducing processes to reduce opportunities for interpersonal contact while assuring safety, we implement initiatives to mitigate infection risks.

Handing over duties from the central monitoring control room to a manager in another room

New Business Development

Strengths

- Technologies and expertise acquired through the supply of energy and contracted research on developing next-generation technologies
- Natural gas infrastructure in Japan owned by JAPEX
- Relationships of trust with clients and business partners who collaborate in existing businesses

Opportunities

- The practical application of JAPEX's technologies that help realize a low-carbon society, especially CCS/CCUS

Long-term Target

Generate environmentally friendly new business

FY2022 Targets

- Develop a new business model
- Identify new business seeds

Progress

- Promoting pilot tests to achieve practical application of CCS/CCUS and other technologies
- Considering new business models for supplying LNG as new business seeds

Main Contracted Research Fields

- CCS/CCUS
  - Surveying appropriate sites
  - Drilling wells for injecting CO_2
  - Monitoring wells after injecting and storing CO_2
- Methane hydrate
- Other
  - Binary power generation

New Business Development

We are working to create environmentally friendly business by leveraging our E&P technologies and experience in supplying natural gas. In particular, we aim to swiftly commercialize CCS/CCUS as we position carbon recycling as a major target field. We also strive to create new businesses in areas surrounding existing businesses, such as building a new business model by establishing diverse supply methods for LNG. In addition, we participate in initiatives for the next-generation technology development promoted by the government, including technologies for surveying methane hydrate and deep-sea mineral resources.

FY2020 Highlights

- Established the Environmental Business Promotion Dept., a department specifically for creating environmental technology-related businesses (January 2021)

Establishment of the Organization for Environmental Business Promotion
https://www.japex.co.jp/en/news/detail/20201218_01/

- Participated in a public-private study committee related to carbon-neutral industries hosted by Niigata Prefecture and the Ministry of Land, Infrastructure, Transport and Tourism (January 2021)
- Started feasibility study on a carbon recycling project utilizing cross-industry collaboration in Tomakomai (March 2021)

Start of a Feasibility Study on a Carbon Recycling Project with the Sector-Coupling in Tomakomai
https://www.japex.co.jp/en/news/detail/20210326_01/

We established the Environmental Business Promotion Dept. as a specialized organization responsible for studying the commercialization of environment-related technology fields. We strove to strengthen our internal systems for activities to quickly realize businesses using hydrogen-related technologies and effective utilization of CO_2, such as CCS, CCUS, and carbon recycling.

Regarding commercialization initiatives in the carbon recycling field, we started a feasibility study, contracted by the government, for a carbon recycling business using cross-industry collaboration and participated in a public-private study committee related to carbon-neutral industries. We promoted these initiatives while fostering collaboration with outside organizations.

Initiatives for Developing Next-Generation Technology

Methane Hydrate

Methane hydrate is an ice-like substance formed by methane, which is the main component of natural gas, and water. It exists only in high-pressure and low-temperature environments, such as below the seabed in deep waters over 500 meters below the surface. In Japan, there are two types of methane hydrate beneath the sea bed: "pore-filling type in sand" and "shallow type."

The Plan for the Development of Marine Energy and Mineral Resources that the Japanese government revised in February 2019 promotes the development of technologies to enable commercial production in the future and outlines the target of starting projects aimed at commercialization led by private-sector companies between fiscal 2023 and 2027.

To date, two pilot tests of offshore production of pore-filling type methane hydrate have been conducted, one at the Atsumi Peninsula in Aichi Prefecture and another at the Daini Atsumi Knoll offshore the Shima Peninsula in Mie Prefecture. For the first test, JAPEX contracted out the offshore work, and for the second, the Japan Methane Hydrate Operating Co., Ltd. (JMH) participated. JMH was founded with the funding of private-sector companies, including JAPEX and other E&P companies as well as engineering companies.

In the first test in 2013, gas production from an offshore methane hydrate layer was successfully confirmed. In the second test in 2017, measures taken to address issues that arose confirmed the continuous production of gas over several weeks.

Currently, based on the results of these offshore production tests, the MH21-S R&D Consortium—comprising Japan Oil, Gas and Metals National Corporation (JOGMEC), the National Institute of Advanced Industrial Science and Technology (AIST), and JMH—is working on preparations for the next offshore production test and developing production technologies aimed at commercialization. Going forward, JAPEX will continue to contribute to the government's efforts to commercialize methane hydrate by participating in offshore production tests through JMH.

METI Revises the Plan for the Development of Marine Energy and Mineral Resources
https://www.meti.go.jp/english/press/2019/0215_004.html

Survey Technologies for Deep-sea Mineral Resources

The existence of useful ocean mineral resources within Japan's exclusive economic zone (EEZ) has been confirmed. Japan's government aims to establish the world's first methods for surveying these deep-sea mineral resources with high efficiency and at low cost and then transferring the technologies to private corporations. Under the Cross-ministerial Strategic Innovation Promotion Program (SIP),* the government selected "Next-Generation Technology for Ocean Resources Exploration" as the first five-year plan in fiscal 2014 and "Innovative Technology for Exploration of Deep Sea Resources" for the second five-year plan in fiscal 2018. The research and development of these technologies is proceeding apace.

In 2014, JAPEX and three other private corporations established the Research and Development Partnership for Next-Generation Technology of Marine Resources Survey (J-MARES), a company certified by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). J-MARES succeeded in developing and using proprietary technologies in exploration efforts of new hydrothermal deposits. Due to its solid track record during SIP Phase 1, J-MARES is the only private research organization chosen to participate in SIP Phase 2. Under SIP Phase 2, the aim is to promote the development of exploration and production technologies for rare-earth deposits, a deep seafloor mineral resource, at water depth exceeding 5,000 meters. We will continue participating in the development of technologies to build a model for industrialization related to future deep-sea resource development and the practical application of the various technologies developed under SIP Phase 2.

* A cross-organizational program that extends beyond the bounds of individual ministries and sectors. SIP was established to achieve scientific and technological innovation based on the "Comprehensive Strategy on Science, Technology and Innovation" and the "Japan Revitalization Strategy," which are major government policies. Under Phase 1 in 2014, 11 issues were decided, including Next-generation Technology for Ocean Research Exploration. Under Phase 2 in 2018, 12 issues were decided, including Innovative Technology for Explorations of Deep Sea Resources.

New Business Development

JAPEX's Strengths and New Possibilities in CCS/CCUS

CCS/CCUS technologies are expected to help realize carbon neutrality. In Japan, they have been studied since the 2000s in basic energy plans as an issue of the future. From the 2010s, this idea took shape as the government's CCS pilot test project, which promotes technological development and verification toward practical application.

In the government's pilot test for large-scale CO_2 injection under the seabed offshore Tomakomai in Hokkaido, Japan CCS Co., Ltd. (JCCS, which was funded by JAPEX and other private-sector companies) was contracted by the government.

To practically apply CCS/CCUS, it is necessary to establish technologies and expertise to survey layers appropriate for CO_2 injection, drill wells for injection, and stably store CO_2 over the long-term.

We can use all the technologies and expertise cultivated in oil and gas E&P for technologies used in CCS/CCUS, such as assessing underground structures, estimating petrophysical properties, drilling injection wells, conducting production and fluid movement simulations, and underground monitoring (including seismic survey). JAPEX therefore has provided this technological know-how and dispatched central personnel to JCCS.

JAPEX's strengths in CCS/CCUS commercialization are its E&P-related technologies and personnel applicable to CCS/CCUS, the Group's ability to provide comprehensive services from selecting appropriate sites to monitoring, and its multiple oil and gas fields expected to be able to store a significant amount of CO_2 in Japan.

Besides participating in JCCS, we have begun studies aimed at leveraging these strengths and commercializing CCUS and carbon recycling in Japan and overseas.

Going forward, JAPEX has positioned CCS/CCUS as a key field and will continue aiming to achieve swift practical application and commercialization to help realize a carbon-neutral society and to grow as a comprehensive energy company. Over the medium to long term, we will continue studying the application of CCS/CCUS in natural gas and biomass power generation as well as collaboration on and entering into fields utilizing CCS/CCUS, such as those related to blue hydrogen and methanation.

Subsurface investigation from land and sea (Geophysical Exploration)


Well drilling from land to subseafloor


Well management/monitoring


Selecting candidate sites for CCS/CCUS and injecting, storing, and monitoring CO_2

- The Group's technological capabilities for necessary technological elements, such as subsurface surveys, drilling, and monitoring
- Utilizing data related to deep saline aquifers (layers expected to store CO_2) gained from exploration in Japan to date

Flow of CCS and CCUS

CO_2 before it is emitted into the atmosphere from power plants and factories

Separating and capturing CO_2

Necessary elements

Establishing CO_2 separation plants

Transport of separated CO_2 to storage sites by pipelines and other methods

CO_2 transport

Necessary elements

Establishing CO_2 transport pipelines

CO_2 utilization

Injecting and storing CO_2 from wells to underground

CO_2 injection and storage

Necessary elements

Selecting sites appropriate for CO_2 storage
Drilling wells for injection
Monitoring the injection and storage situation

Transport of separated and captured CO_2

- Establishing CO_2 transport infrastructure using natural gas and LNG transport and supply expertise

Including high-pressure pipelines and coastal vessel transport

Collaborating on and entering carbon-neutral business fields

- Applying CCS/CCUS for natural gas and biomass power generation
- Considering entering blue hydrogen and methanation-related fields

Focusing on gas-fired and biomass plants, including facilities owned by other companies in addition to our own Electric Power Business

Blue Hydrogen
Produce hydrogen by decomposing natural gas, then capture CO_2

Methanation
Producing Methane (CH_4) from hydrogen (H_2) and CO_2

Initiatives to Support Value Creation

Sustainability Management

Basic Concept

JAPEX believes that our mission is to provide a stable supply of energy and that our business activities themselves are a form of Corporate Social Responsibility (CSR).

Under this recognition, we discuss and decide on policies and core themes related to CSR and sustainability at the management level, and engage in activities across the entire JAPEX Group, including subsidiaries and affiliates.

The sustainability activities we have been promoting across the entire JAPEX Group include specific initiatives for the five core CSR themes, as well as evaluations encompassing an Environmental, Social and Governance (ESG) perspective.

Sustainability Management
https://www.japex.co.jp/en/sustainability/management/

Promotion System

To strengthen our response systems related to medium- to long-term business issues and ensure the Company's sustainable growth, Sustainability Committee was established in fiscal 2021 by integrating the CSR Committee and meetings that discuss the Medium-term Business Plan.

The President serves as the chair, the officer in charge of the Corporate Strategy Department serves as the vice chair, and the Corporate Strategy Department serves as the secretariat. The committee meets multiple times per year as necessary. The committee deliberates and discusses the following items.

- Long-term vision, Medium-Term Business Plan
- Policies related to ESG, including the Code of Ethics and Conduct
- Establishment and review of core CSR themes and CSR action plans
- Dissemination of sustainability information outside the company, such as in the Integrated Report

Items deliberated by the Sustainability Committee are reported to the Board of Directors, and resolutions on key items are resolved. In addition, the status of activities related to ESG is reported every year to the Board of Directors.

Furthermore, to undertake CSR and ESG initiatives across the Company, we formulate "CSR action plans" based on the core CSR themes "SHINE" every year. For some important initiatives, KGIs and KPIs are set for each department. Formulation of CSR action plans and reviews of the results are conducted by the Sustainability Committee.

To promote CSR and ESG initiatives, we place ESG promotion officers in each department and establish systems to discuss and adjust the formulation of action plans and the disclosure of information.

Going forward, we will continue to further strengthen our systems and promote sustainability activities.

Five Core CSR Themes "SHINE"

The JAPEX Group, including subsidiaries and affiliates, places great importance on corporate social responsibility (CSR) in conducting our business. Based on this concept, we identified five core CSR themes "SHINE" and challenges in 2014 to meet the expectations and demands of our stakeholders and grow as a trusted global company. We review each challenge based on changes in society and its demands. We have currently identified 12 challenges. Every year, we establish CSR action plans in line with the core themes and individual challenges. PDCA cycles are conducted by the Sustainability Committee reviewing the achievement progress and setting goals for the following fiscal year.

We set 55 targets for the fiscal 2020 CSR action plan. We achieved 34 targets (100% and above), partially achieved 16 targets (between 80% and 100%), and missed 5 targets (under 80%). Many of the missed targets were attributable to effects of the COVID-19 pandemic.

Review Process for Each Challenge

1. Evaluating present status and identifying challenges

Comprehensively identify CSR challenges while referring to the GRI Standards and other guidelines.

2. Analyzing and evaluating the challenges

Set the priority of each challenge considering the business impact and the importance to stakeholders.

3. Conducting internal survey

Conduct an internal survey to define the importance of each CSR challenge for management officers and managers.

4. Reviewing the items of CSR disclosure

Identify new each challenge based on the results of the evaluation and survey.

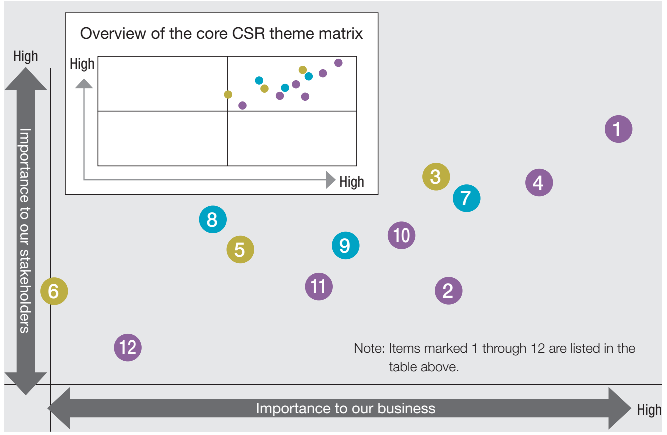
▼ Five Core CSR Themes "SHINE"

	Core CSR Themes	ESG
S	Stable and sustainable energy supply	E S
H	HSE as our culture	E S
I	Integrity and governance	G
N	Being a good Neighbor	S
E	The Employer of choice	S

▼ 12 Individual Challenges

1. Stable energy supply
2. Development of new technologies
3. Climate change response
4. Occupational health and safety
5. Pollution prevention and resource recycling
6. Preserving biodiversity and ecosystems
7. Governance
8. Crisis management
9. Compliance
10. Growing together with stakeholders
11. Respecting employee diversity and developing human resources
12. Creating a fair and good working environment

Matrix of the core CSR themes



Note: Items marked 1 through 12 are listed in the table above.

Sustainability Management

Main CSR Action Plan Targets and Achievements in Fiscal 2020
https://www.japex.co.jp/en/sustainability/management/materiality/

Main CSR Action Plan Targets and Achievements in Fiscal 2020

Achievement Evaluation: Achievement rates of ○ (100% and above), △ (80–under 100%), and × (under 80%)

Core CSR Themes	Individual Challenges	Main Fiscal 2020 Action Plans and Targets	Fiscal 2020 Achievements	Evaluation	SDGs
S Stable energy supply E S	❶ Stable energy supply ❷ Development of new technologies ❸ Climate change response	Start operation of the Soma LNG Terminal No. 2 Tank and the Fukushima Natural Gas Power Plant	Finished the construction of the No. 2 Tank and power plant as scheduled and started commercial operation of Unit No. 1 in April 2020 and Unit No. 2 in August 2021	○	
		Achieve zero interruption to the supply of crude oil and natural gas	Although gas supply from the Soma LNG Terminal was temporarily suspended to conduct a safety check following an earthquake off-shore Fukushima Prefecture in February 2021, we switched to a gas supply from another base, and there was no supply interruption to customers, except for the neighboring Fukushima Natural Gas Power Plant.	△	
		Continue measures toward commercialization of methane hydrate	Designed equipment needed for an offshore production test through Japan Methane Hydrate Research Co., Ltd.	○	
		Continue measures toward commercialization of CCS/CCUS in Japan and overseas	Established a department aimed at promoting environment-related businesses that contribute to carbon neutrality and low car-bonization/decarbonization. In addition, we acquired technological knowledge related to CCS through the activities of Japan CCS Co., Ltd. and the Geological Carbon Dioxide Storage Technology Research Association.	○	
H HSE as Our Culture E S	❹ Occupational health and safety ❺ Pollution prevention and resource recycling ❻ Preserving biodiversity and ecosystems	Reduction of serious accident rate (Lost Time Injury Frequency (LTIF): 0.13, 10% lower than the average for the last two years)	Recorded one Lost Time Injury (LTI), resulting in an LTIF of 0.29	×	
		Keep water recycling rate of 90% or more for SAGD operations at the Canada Oil Sands Project	Achieved water recycling rate of 99% for SAGD operations at the Canada Oil Sands Project	○	
		Implement KEI's efforts to earn the Blue ranking in the Program for Pollution Control, Evaluation and Rating (PROPER)* performance level evaluation program for corporate environmental management *A rating program by the Indonesian Ministry of Environment to evaluate companies' environmental measures and environmental regulation compliance, from the highest rating of gold to green, blue, red, and black	Earned the Blue ranking again by continuing environmental activities	○	
		Cooperate wildlife monitoring activities with the local community (Indigenous Advisory Group (IAG)) through JACOS, Canada	Accurately assessed the numbers and types of animals using remote monitoring cameras and audio sensors. Erected signs about the monitoring activities in an effort to raise awareness of the moni-toring zone and prevent erroneous measurements	○	
I Integrity and Governance G	❼ Governance ❽ Crisis management ❾ Compliance	Strengthen a highly efficient and transparent corporate governance system	Reformed committee organizations as a way to strengthen corpo-rate governance. Established the Sustainability Committee by inte-grating existing meetings to deliberate Medium-term Business Plans and ESG items	○	
		Respond to the COVID-19 pandemic	Taking hard and soft infection countermeasures, including introduc-ing remote access for working from home Focusing on preventing the spread of infections when an infection is confirmed	○	
		Implement initiatives aimed at preventing compliance violations (Reduction of harassment index year on year)	Although we provided training to officers and managers and harass-ment education through email newsletters to all employees, indica-tors slightly worsened year on year in an employee survey related to harassment	△	
N Being a Good Neighbor S	❿ Growing together with stakeholders	Make contributions to local communities and engage in social activ-ities in regions where we operate and conduct overseas projects	Continued collaboration with local communities and indigenous people in the Canada Oil Sands Project operation area. Due to requests from the IAG, we held regular meetings three times as scheduled and canceled one. Only one frontline tour was held with a limited number of people due to COVID-19.	△	
		Contribute to regional economic revitalization through the formation of environmentally friendly new businesses such as regional energy services	A feasibility study on the CO_2 material and energy balance among industries in Tomakomai was conducted through a commissioned project. Built a foundation for creating new environmentally friendly industries.	○	
E The Employer of Choice S	⓫ Respecting employee diversity and developing human resources ⓬ Creating a fair and good working environment	Acquire diversity-related certifications	Acquire the certification Eruboshi (the highest third level) based on the Act on Promotion of Women's Participation and Advancement in the Workplace	○	
		Formulate the JAPEX health policy (initiatives for health management)	Formulated the JAPEX Health Management Declaration	○	

Sustainability Management

UN Global Compact

On May 28, 2020, JAPEX signed the UN Global Compact (UNGC) and was registered as a participating company. JAPEX also joined the Global Compact Network Japan (GCNJ), which comprises Japanese companies that have joined the UNGC.

In line with top management's commitment, we specified our core CSR themes in "SHINE" and identified 12 individual challenges. Through CSR action plans based on these themes and challenges, we have been taking measures related to the four areas of the UNGC covering human rights, labour, environment, and anti-corruption.

WE SUPPORT UN GLOBAL COMPACT

UN Global Compact
https://www.unglobalcompact.org/

The Ten Principles of the UN Global Compact

Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: make sure that they are not complicit in human rights abuses.	Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; Principle 4: the elimination of all forms of forced and compulsory labour; Principle 5: the effective abolition of child labour; and Principle 6: the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges; Principle 8: undertake initiatives to promote greater environmental responsibility; and Principle 9: encourage the development and diffusion of environmentally friendly technologies.	Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

FY2020 Subcommittee Activity Results

At the Global Compact Network Japan, which is the local network in Japan for the UN Global Compact, we conduct sub-committee activities for each theme and discuss and share information on sustainability policies and initiatives. In fiscal 2020, we joined five of the 13 subcommittees.

Going forward, we will continue to further improve our own initiatives by participating in subcommittees, collecting information related to the latest trends and best practices, and by building networks with promotion managers.

Subcommittees Joined

- Environmental Management Subcommittee
- Disaster Risk Reduction (DRR) Subcommittee
- SDG Subcommittee
- ESG Subcommittee
- Reporting Research Subcommittee

Relationship with Stakeholders

JAPEX continuously engages in dialogue with our stakeholders to gain their understanding and cooperation in our business activities. We also aim to contribute to the revitalization and development of the region by responding to the expectations and requests from various stakeholders.

Stakeholders	Relationship with stakeholders	Main means of communication
Clients	• Stable supply of energy • Product safety, Quality control	• Communication through marketing activities • Provision of product information
Shareholders and Investors	• Timely and accurate disclosure • Appropriate return of profits	• General meeting of shareholders • Financial results presentation meeting • One-on-one meetings with institutional investors and analysts • Briefings for individual investors • Research Center tours for shareholders • Disclosure through integrated reports and websites
Local Communities	• Social contribution activities • Consideration for living environment • Contribution to local economies	• Dialogues with the local community in operation areas in Japan and overseas • Tours of our facilities • Regular meetings with indigenous groups • Participation in and sponsored for local events • Social contribution activities and volunteer activities
Oil- and Gas-Producing Countries	• Technological support • Incident prevention • Contribution to local economies	• Various meetings and briefings on the progress of the project
Business Partners	• Formulation and operation of appropriate business plans as an operator • Checking and proposing improvements to business activities planned and conducted by operators	• Workshops and meetings related to operations and technologies • Close communication about our business
Transaction Partners	• Fair transactions • HSE awareness	• Disclosure of Basic Policy on Procurement • HSE management based on the Contractor HSE management guidelines
Employees	• Occupational health and safety • Appropriate benefits • Creation of an amenable working environment • Human resource development • Consultation between labor and management	• Provision of information through in-house intranet and in-house journal • Training and seminars • Townhall meetings with management and employees • Employee awareness survey • Regular meetings with the labor union

Instilling Sustainability and Holding Sustainability Workshops

In order to promote internal awareness of sustainability activities within the company, we introduce the latest information on sustainability and the efforts of our Group companies in the CSR newsletter, published on the intranet. In addition, we are working to instill sustainability throughout the Company by holding sustainability workshops for management.

- CSR Newsletter (FY2020/published four times a year)
- Sustainability Workshops (FY2020)
  April 2020: Climate change risks and TCFD scenario analysis
  September 2020: Corporate governance at energy companies

Sustainability workshops

HSE

Basic Concept

The JAPEX Group prioritizes occupational health, safety and environment (HSE) in its business activities to continue and develop businesses in consideration of the business characteristics of handling natural gas and crude oil.

To ensure these priorities are put in practice, we formulated the JAPEX HSE Policy and strive to foster an HSE culture where each executive and employee recognizes and follows “HSE first” and “Safety first”.

We also expect contractors to implement initiatives based on the policy and are promoting HSE activities in collaboration with all our stakeholders, including not just employees but also local residents and contractors.

Health, Safety and Environment (HSE)
https://www.japex.co.jp/en/sustainability/social/hse/

Medium-term HSE Plan

Results of the First Medium-term HSE Plan (FY2018–2020)

In fiscal 2018, JAPEX formulated its first three-year Medium-term HSE Plan. The purpose of this plan is to share the medium- to long-term vision and targets across the Group and simultaneously take action. HSE targets at each of the Company’s sites are set based on this medium-term plan. In addition, we set targets for each fiscal year in the CSR action plan and carried out activities.

We established and undertook eight goals in the First Medium-term HSE Plan. We achieved results that would not have been possible through just the existing PDCA cycle for each single fiscal year.

▼ The Eight Medium-term HSE Plan Goals and Main Achievements

Goals	Main Achievements
To achieve continuous reduction of the LTIF*1 and TRIR*2	Introduced international standards for calculating injury frequency, set single fiscal year targets, and promoted activities to reduce injuries
To maintain necessary HSE resources and organization	Assigned HSE officers and optimized HSE personnel assignments in response to changes in the business portfolio
To foster the Company’s HSE culture	Conducted an internal HSE level survey and rolled out measures to improve the level, such as education about laws and regulations based on the results
To develop new HSE training programs	Established a Company-wide HSE education program and conducted HSE education for each stage
To introduce process safety approaches	Developed the manuals for process safety and held workshops on operational frontlines
To strengthen the contractor HSE management element	Strengthened frontline plant management through HSE officers, formulated the Contractor HSE management guidelines, and started enforcing them
To strengthen HSE governance in the JAPEX subsidiary companies	Concluded an agreement related to HSE with 10 domestic subsidiaries
Regarding GHG emissions, implement more detailed monitoring and intensify reduction measures	Realized multiple GHG emission reductions by investing in facilities and optimizing operations

*1 Lost Time Injury Frequency: Calculated as the number of lost time injuries per 1,000,000 work hours.
*2 Total Recordable Injury Rate: Calculated as the number of total recordable injuries per 1,000,000 hours worked.

In order to achieve continuous reduction of the LTIF and TRIR, we changed the internal process for determining the injury rate calculation method based on the international standard (IOGP) in fiscal 2018, established the reduction of LTIF as one target of the CSR action plan from fiscal 2019, and conducted relevant activities. In fiscal 2020, we established the target of holding down the LTIF to 0.13 or under (down 10% compared with the average of the two most recent years). The result was 0.29 due to one lost-time injury, and we missed the target. We will continue working to reduce LTIF and TRIR by thoroughly taking recurrence prevention measures and strengthening safety management measures.

In addition, to strengthen the contractor HSE management element, we introduced HSE officers (personnel who specifically conduct HSE management in the project division) from fiscal 2019 at the Company’s large-scale construction sites. As a result, we achieved zero accidents in fiscal 2020 at sites where the officers were introduced. In addition, very experienced HSE officers improved environments to prevent unsafe behavior and fostered communication related to understanding laws and regulations, helping improve the safety awareness and capabilities of subcontractors and the Company’s HSE managers.

An HSE officer in action at a construction site

Formulation of the Second Medium-term HSE Plan (2021–2023)

Under the Second Medium-term HSE Plan (FY2021–2023) from fiscal 2021, we established eight goals, including the new ones of disaster prevention, emergency response, and environmental management, in consideration of the results and achievements of the first plan, such changes in the environment as intensifying natural disasters and a rapid rise in interest in ESG and the SDGs, a transformation in the Company’s business portfolio, and aging domestic operational facilities.

▼ Eight Goals of the Second Medium-term HSE Plan and Initiatives

Goals	Initiatives
Reduction of the frequency of accidents	Establish accident and injury rate targets, strengthen analysis of accident factors, improve the health of employees, manage the hygiene of workplaces, respond to adoption of new workstyles to address the COVID-19 pandemic, and efficiently and effectively utilize IT
Legal compliance and HSE-MS optimization	Respond to the expansion of business fields, optimize HSE documentation, and introduce a contractor management system for small to mid-sized construction sites
Raise HSE awareness and foster positive behavior	Create training programs and enhance HSE leadership
Instill process safety and build management systems	Promote a process safety management system and visualize HSE risks
Enhancement of emergency response capabilities	Enhance every employee’s disaster prevention awareness, build a Company-wide disaster prevention system, and systematically conduct regular training
Strengthening of measures against climate change	Conduct energy-saving activities to reduce GHG emissions
Enhancement of environmental risk management	Initiatives related to water, pollution and resources, and biodiversity
Strengthening of overseas HSE governance	Strengthen overseas business HSE management and overseas HSE audits and establish physical security concepts (facility security, mobile security, personal protection)

HSE

Water Resources
https://www.japex.co.jp/en/sustainability/environment/water/

Pollution Prevention
https://www.japex.co.jp/en/sustainability/environment/pollution/

HSE Management System

To comprehensively achieve the goals set out in the JAPEX HSE policy, we have been implementing our unique HSE management system (HSE-MS) since 2014. We are applying it to businesses in Japan and overseas where the JAPEX Group serves as an operator. The HSE-MS sets out promotion systems, risk assessment methods, targets, education, operation management, audits, and review methods by management. The HSE Department of the Headquarters handles Company-wide control. We also established relevant departments in each district office and subsidiaries to promote HSE.

The HSSE Committee, which is chaired by the HSE Dept. executive and attended by the president and labor union president, conducts an overall review of the HSE-MS and deliberates important matters and basic policies related to HSSE, which adds security to HSE. The status of HSE activities is reported every year to the Board of Directors.

Safety experience training using VR

Continuous Improvement of the HSE-MS

HSE Department personnel work every day to continuously improve the activities of the HSE-MS by confirming the operational frontlines, conducting HSE tours to discuss areas for improvement with frontline employees, and conducting internal audits based on the HSE-MS.

As operation of the HSE-MS has reached a mature phase, we have been conducting audits with the purpose of enhancing its effectiveness from fiscal 2019. We confirmed the progress of the HSE-MS implementation, such as the progress of organizing operation records. We are also working to improve our HSE activity level by identifying effective activities (strong points) of the HSE-MS and rolling them out to other locations. Highlighting excellent activities also serves to further motivate HSE staff.

In fiscal 2020, we identified 20 strong points in audits of seven locations as we worked to roll audits out to other locations.

HSE Education

We established various HSE education programs aligned with different purposes under the HSE-MS and conduct them at each location. These include basic education for all employees, professional education and training to prevent incidents for specific operational employees, and visitor education for contractors the first time they conduct operations on the premises of the Company or its locations.

Working to further expand HSE education based on the First Medium-term HSE Plan, in fiscal 2020 we introduced training for new managers and stage-based education for mid-level employees with four to six years of frontline experience.

In addition, as part of our effort to enhance specialized education, we introduced safety experience training using virtual reality (VR) from fiscal 2020 to enhance sensitivity to danger by enabling employees to experience occupational disaster simulations.

By further enhancing HSE education going forward, we strive to instill awareness of HSE and safety priorities in each employee.

Process Safety

Assuring the process safety of production facilities is very important to prevent major accidents, such as explosions. In Japan, there has been an increase in production equipment that is decades old, and safety management at these kinds of locations has become an issue.

Although JAPEX has fields that have continued oil production for over 60 years in Japan, there are also locations like the Soma LNG Terminal that have only been operational for a few years. Depending on the location, there are big differences in operational years and business characteristics. To this end, we are working to set up comprehensive and systematic process safety in line with the status of each location.

In fiscal 2020, we worked to instill process safety in-house by establishing manuals, hosted seminars and lectures by internal and external experts for everyone from new employees to upper management, and held workshops for technicians. Going forward, we will continue to conduct risk assessments (HAZOP,*1 etc.) and reduce risks based on the results.

Environment

Water Resource Management

JAPEX appropriately disposes of the water resources it uses in its business activities. After purifying water used in the production of oil and natural gas, as well as pit water collected in the course of mining, to meet wastewater standards set by laws and regulations, we either expel it into public waterways or inject it back underground.

At our domestic production plants, we strive to use water more effectively by promoting the recycling and reuse of water used as a coolant in production facilities and water used as boiler water. In fiscal 2020, the amount of intake water in Japan amounted to 870,000 kiloliters, a decrease of around 70,000 kiloliters year on year. The main factor behind the decrease was the completion of construction of a second tank at the Soma LNG Terminal.

To further strengthen water resource management, we started evaluating impacts on business and the surrounding environment from fiscal 2020 using the water risk mapping tool (Aqueduct) of the World Resources Institute (WRI).

Air Pollution Prevention

We are working to assess, manage, and limit emissions of the air pollutants VOCs,*2 NOx (nitrogen oxide) and SOx (sulfur oxide).

We have been participating in a voluntary action plan to reduce VOCs emissions as a member of the Japan Natural Gas Association since fiscal 2005. As part of our ongoing drive to reduce VOC emissions, we are working to seal crude oil storage tanks better and incinerate VOCs that would otherwise be emitted from gas processing facilities. Fiscal 2020 VOC emissions totaled 1,417 tons, a year-on-year increase of around 292 tons. The main factor behind the rise was a rapid increase in the release of natural gas into the air following the malfunction of equipment at production sites.

In addition, we are working to monitor and reduce emissions mainly for the Pollutant Release and Transfer Register (PRTR) substances benzene, toluene, and xylene.

*1 HAZOP: Hazard and Operability Studies
*2 VOCs: Volatile Organic Compounds

Human Resource Development and Diversity

Basic Concept

JAPEX recruits and promotes various talents regardless of gender or nationality. We are also developing a corporate and organizational culture where all employees can demonstrate their abilities, improving the workplace environment, and reviewing our personnel system. In addition, we are working on diversity, career development, and training to raise the awareness of every employee.

Human Resource Development
https://www.japex.co.jp/en/sustainability/social/hrdevelopment/

Human Resource Development

Policies and Career Development

JAPEX supports the self-realization of individual employees through career development. For that purpose, the Career Development System and Education Programs are provided to them for the effective formation and improvement of the required abilities and skills.

The Career Development System defines the three human resource types needed to carry out our business, and the career development guidelines were established for acquiring the skills and experience required for each human resource. In addition, employees can choose courses tailored to their career goals and proceed with the necessary experience and learning while checking their status and goals through an annual career development meeting with their managers.

Career Development Course	Human Resource Categories (Three Human Resource Types)
Management Course Gaining and enhancing management capabilities	• Global leaders who can be responsible for strategy formulation and business promotion • Business leaders who can manage function-specific organizations
Professional Course Enhancing specialization and gaining highly specialized capabilities	• Advanced specialists who can contribute to businesses through expertise in specialized fields

Next-generation Management Personnel Development Program to Develop Human Resources Responsible for the Next Generation

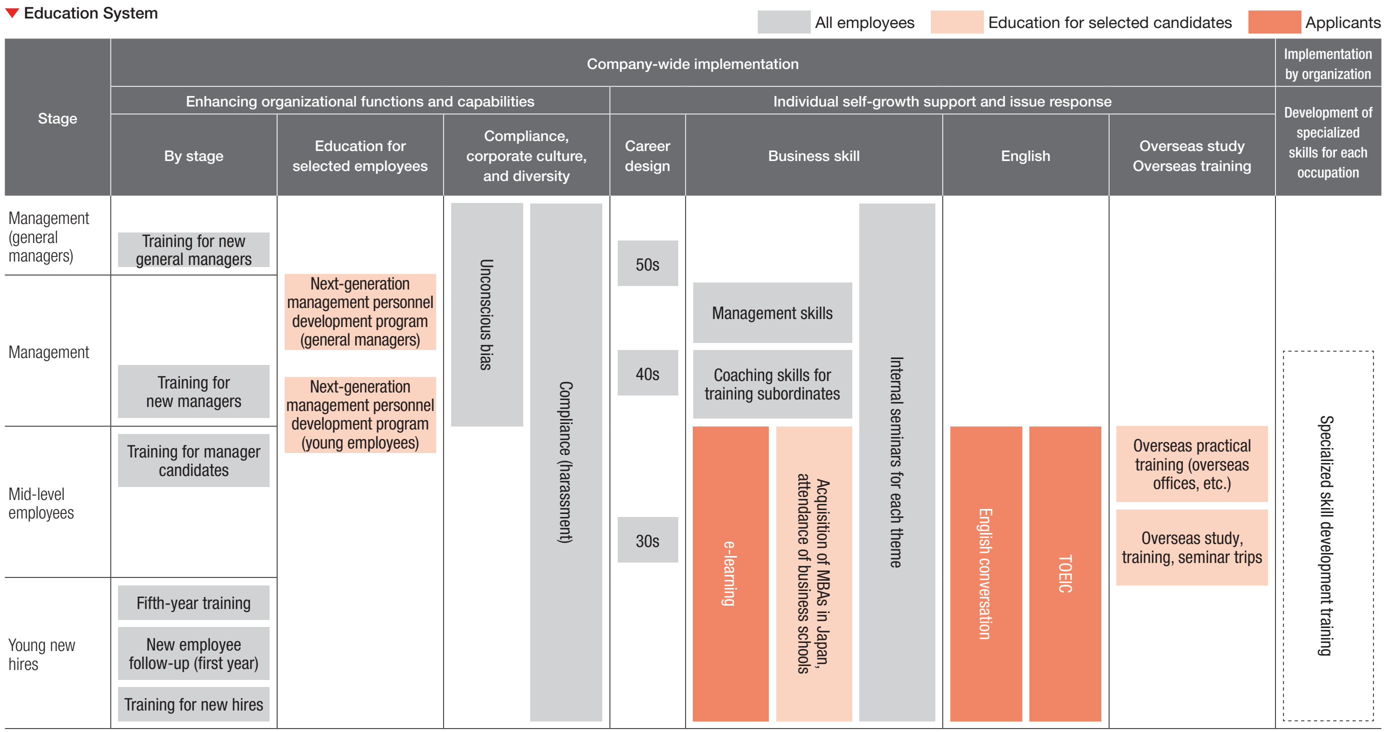
We conduct management personnel development programs with the aim of early selection and continuous development of next-generation human resources who have the capabilities to lead and steer our business from a Company-wide perspective. Employees aged 30 to 45 in the period of developing their abilities are divided into two halves, and we provided training to both groups between fiscal 2019 and 2020.

Education Programs

Employees can have opportunities to participate in the Company-wide training depending on their seniority and role, which will help them develop their career. We conduct career design training for setting their future voluntarily career goals, career stage training for the awareness of employee roles at each position, and business skills training such as logical thinking and better presentations. Employees also can use an e-learning system that allows them to select courses related to new fields such as IT skills as well as basic business skills.

In addition, opportunities for overseas study and training (practical training at our overseas offices, dispatch to educational institutions in Europe and the United States) are provided in order to develop human resources responsible for overseas related businesses. At the same time, we implement systematic education programs for employees, from newly hired ones to middle management, such as overseas business skill courses with the aim of enhancing employees' project management capabilities and commercial skills.

▼ Education System



Human Resource Development and Diversity

Diversity
https://www.japex.co.jp/en/sustainability/social/diversity/

Promoting Diversity

Policies and Initiatives

JAPEX develops a corporate and organizational culture where all employees can demonstrate their abilities, makes improvements to the workplace environment, and reviews its personnel system with the aim of enabling diverse employees to tap their full potential.

JAPEX established the JAPEX Diversity Policy. The vision of this policy is to strengthen corporate competitiveness by ensuring that employees with diverse backgrounds (in terms of age, gender, nationality, career, and work style) continue to grow as self-directed professionals. We have formulated an action plan based on the following three principles set forth in this policy

Three Principles Set Forth in the Diversity Policy

1. Secure excellent human resources.
2. Maximize employee capabilities.
3. Improve productivity and raise awareness of business innovation.

Reforming Our Culture and Mindsets through Unconscious Bias Training

Unconscious bias is something that we all have, cultivated through our individual experiences to date. However, if we do not realize this bias and impose it on others, it may hinder the exercise of each person's individuality and the growth of the organization. Since fiscal 2020, as part of our efforts to raise awareness of diversity, JAPEX has provided training to managers that is designed to foster an organizational culture that enables everyone to thrive and generate innovation. We will continue this training from the following fiscal year onward and steadily expand it to include general employees as well.

Career Support System to Support Employees in Continuing Their Careers and Career Advancement

JAPEX has introduced a system to support employees in continuing their careers and career advancement by allowing them to demonstrate their inherent potential without being affected by various life events.

Career Support System	Content
Support for childcare costs for sick children and business trips	Actual expenses paid by the company for childcare for sick children and extended childcare for business trips to double-income full-time employees (until children reach the fourth grade of elementary school)
Childcare support for employees returning to full-time work	Actual childcare costs paid by the company when double-income employees with children under the age of three return to full-time work after maternity leave, childcare leave, or reduced working hours
Unpaid leave when an employee's spouse is transferred overseas	A 10-day unpaid leave for long-term stays at the destination of the spouse
Job return system for employees whose spouse has been transferred overseas	Reemployment system for employees who retired due to overseas relocation of their spouse

Efforts to Recruit Women to Management Positions

As part of our efforts to promote diversity and inclusion, we secure excellent human resources regardless of gender and promote employees to positions with responsibilities. We have formulated action plans based on the Act on Promotion of Women's Participation and Advancement in the Workplace to improve environments to enable employees to thrive as independent professionals and continue to grow without fear of change.

Action Plans Based on the Act on Promotion of Women's Participation and Advancement in the Workplace: March 31, 2021 Goals and Results

Goals (April 1, 2016–December 31, 2020)	Results
Maintain the ratio of female new graduates at 30% or more	Achieved in fiscal 2017, 2019, and 2020
By 2020, triple the ratio of female managers as of October 2014 (3.4%)	5.7%*
By 2020, promote a female employee to general manager	One employee promoted

* As of December 31, 2020

Action Plan Based on the Act on Promotion of Women's Participation and Advancement in the Workplace: New Goals

We set the following new goals in our action plan to March 31, 2026: increase the number of female managers from 19 as of March 31, 2021 to 25 or more; promote more female employees to general manager; maintain the ratio of female new graduates at 30% or more; and increase the percentage of childcare leave taken by male employees from 44.1% in fiscal 2019 to 80% or more.

External Evaluation

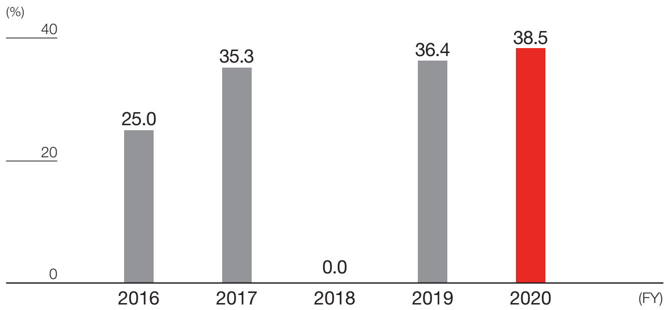
Obtaining the "Eruboshi" certification

In February 2021, we acquired the "Eruboshi" certification mark (third level) from the Ministry of Health, Labor and Welfare, based on the Law for the Promotion of Women's Activities, as a company with excellent implementation of initiatives to promote women's activities.

Obtaining the "Kurumin" certification

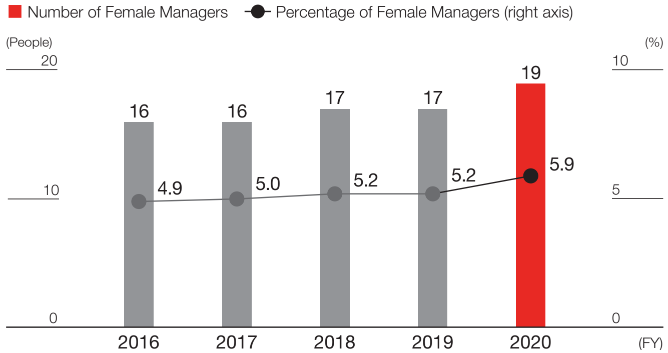
In August 2018, JAPEX obtained the Next-Generation Certification Mark (nicknamed "Kurumin") from the Ministry of Health, Labour and Welfare as a childcare support company that balances work and childcare according to the action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children (April 2016 to March 2018).

Percentage of Female Graduates Hired

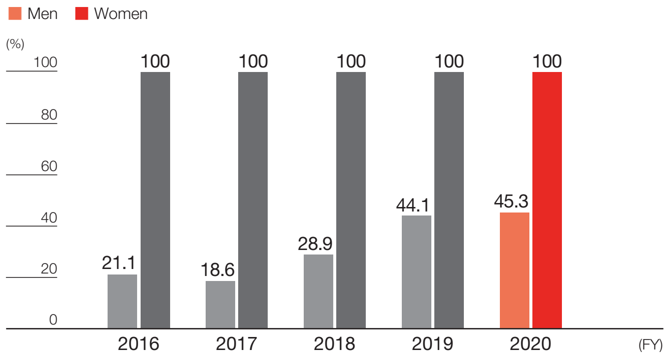


* Data as of April
* In fiscal 2018, we limited hiring to only technical positions and did not hire any women.

Number and Percentage of Female Managers



Percentage of Childcare Leave Taken by Gender



Health Management and Good Working Environment

Basic Concept

JAPEX practices health management based on the idea that consideration for the health of employees contributes to the growth and sustainability of the Company. In addition, JAPEX is working to ensure a good work-life balance and to create a workplace environment where employees who have limited working hours or locations due to childcare, nursing care, or disabilities can also play an active role.

Health Management
https://www.japex.co.jp/en/sustainability/social/healthmgmt/

Good Working Environment
https://www.japex.co.jp/en/sustainability/social/workenvironment/

Health Management

JAPEX Health Management Declaration

The JAPEX Group practices health management based on the idea that consideration for the health of employees contributes to the growth and sustainability of the Company. In October 2020, we formulated the JAPEX Health Management Declaration. Based on the JAPEX Group Code of Ethics and Conduct, the JAPEX HSE Policy, and the JAPEX Health Management Declaration, we have established a promotion system managed by the President to support employees in maintaining and promoting their health in various ways. To promote health management, we will take measures to prevent industrial accidents while always conscious of occupational safety and health, create a comfortable work environment, respect the diversity in values, and prevent harassment. In this way, we will continue working to promote health in cooperation with the health insurance association and the labor union in consideration of the health of employees.

Initiatives that Help Promote Employee Health

In addition to maintaining 100% of the legally mandated regular medical checkups, we recommend that employees at the age of 35 and annually over 40 undergo a complete medical checkup. After the regular medical checkups, we provide follow-ups such as interviews with industrial physicians for employees at high risk of health problems. We also encourage low-risk employees to improve their health and prevent illness, providing health support with a view to post-retirement.

As for mental health, we carry out annual stress check tests for all employees, provide support for those with mental health problems in balancing work and treatment, as well as support for those on leave to return to work.

In addition, in fiscal 2019, JAPEX introduced a Company-wide health promotion app to help employees voluntarily monitor their health status and improve their behavior. We use this app to conduct health surveys and set Company-wide health promotion targets linked to the survey results. Aiming to increase the percentage of employees who walk 8,000 steps or more per day from 10% in fiscal 2020 to 40% or more by 2021, we are raising awareness, by means such as conducting a Company-wide walking campaign, to increase the number of steps per day.

JAPEX has been certified as an excellent health management corporation (large-sized corporate division) for five consecutive years since 2017.

2021 健康経営優良法人 Health and productivity

Good Working Environment

Work-Life Balance

JAPEX is introducing and reviewing our personnel system in order to optimize working hours and realize an autonomous and flexible working style for each employee. We introduced a flextime system in 2017 and a work-from-home system in April 2021. In addition, to encourage employees to use their paid vacation days, we set recommended holidays and encourage employees to take consecutive summer vacations. We improve work environments and support the enhancement of employees' work-life balance.

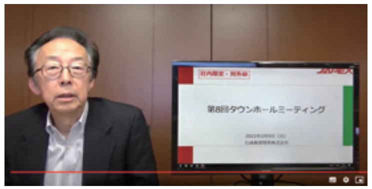
Main Working Systems Introduced by JAPEX (except for shift workers and some workplaces)

- Flextime system
- Work-from-home system (April 2021–)
- Recommended annual holidays and encouragement to take consecutive summer vacations
- A system for annual paid vacations in half-day units (available to all employees)

More Active Communication

Dialogue between Management and Employees

We have held townhall meetings (JAPEX Company-wide dialogue meetings) since 2017 as opportunities to conduct dialogues that foster direct communication from management to employees regarding our management policies and vision of the future. We hold around two such meetings every year on a different theme each time. In fiscal 2020, the meeting was held Company-wide online due to the COVID-19 pandemic, making it easier to participate than before, leading to over 700 attendees and a lively discussion. We feel that this kind of dialogue enabled a more open work environment, and we will work to continue in this manner moving forward.



A screenshot from the online townhall meeting

Workstyles Adapted to the COVID-19 Pandemic

Amid the global COVID-19 pandemic, we prioritize ensuring the health and safety of our employees and their families and have taken measures to prevent infections and stem their spread.

We established the Emergency Response Headquarters in February 2020, which was the early stage of the pandemic in Japan. Using the Basic Novel Influenza Response Plan formulated in 2010 as a guide, we took basic thoroughgoing infection prevention measures, such as requiring all employees to wear masks, wash their hands, disinfect their workspaces, undergo temperature checks, and report their health status. In the event of a confirmed infection, we also collaborate with public health institutes and other institutions to take appropriate measures to prevent the spread of infections. We launched a work-from-home system in March 2020 for employees with a higher risk of developing severe symptoms, and eventually expanded the system to include all employees. In response to the infection situation in Japan, we have been recommending the appropriate implementation of the system. At the same time, we upgraded our IT environment to accommodate working from home and actively conduct meetings and training online. We have conducted surveys related to working from home and identified a lack of communication as an issue, causing lower motivation and mental stress. To ameliorate the situation, we are providing opportunities to have regular conversational chats remotely to increase communication time.

In addition, on the front lines of our operations, we are maintaining a stable supply of energy and ensuring stable operations, such as handing over work duties in a contactless way that avoids in-person interaction.

Reference: Information related to our COVID-19 response on the frontlines of our operations P.28

▼ Targets and Results of Our CSR Action Plan Related to Health Management and Good Working Environment

Fiscal 2020 Targets	Results
Reduce overtime hours (YoY reduction)	We conducted one hearing every two months for departments working many overtime hours and achieved our year-on-year reduction target. (FY2019: 15.54 hours; FY2020: 14.82 hours)
Ensure employees take 75% or more of their paid leave	Due in part to the lockdowns caused by the COVID-19 pandemic, the target was not achieved. (73.3%)
Formulate the JAPEX Health Policy (initiatives for health management)	Formulated the JAPEX Health Management Declaration in October 2020

Risk Management

Basic Concept

JAPEX is striving to improve its risk management system on an ongoing basis to appropriately adapt to increasing uncertainties in the business environment.

Risk Management
https://www.japex.co.jp/en/sustainability/governance/riskmgmt/

Risk Management System

To strengthen a system for managing key risks affecting the entire Company, JAPEX established the Risk Management Committee in April 2021 via the integration of the Internal Control Committee, which had been charged with compliance risk management, and the Project Total Management Committee, which had been tasked with managing risks associated with existing businesses.

Chaired by the President, the Risk Management Committee meets once every three months in principle. The primary items to be discussed by this committee are as listed below.

- Identification and evaluation of Company-wide risks
- Management of progress in key projects currently in the execution and operation stage and the determination of response to issues
- Verification of important matters related to internal control and that of compliance violation incidents

In addition, risks associated with projects involving investment decisions that would entail a certain level of financial burden are discussed at the Investment Evaluation Committee. In these and other ways, the Company tasks committees other than the Risk Management Committee with risk management in specific areas on an as necessary basis.

The Sustainability Committee is charged with managing the Company's Long-term Vision, Medium-term Business Plan and its response to environmental, social and governance (ESG) issues. Moreover, the Sustainability Committee engages in discussion regarding how to address risks identified by the Risk Management Committee and deemed to constitute management issues requiring particular attention over the long term.

The risk management system, including the secretariat of the Risk Management Committee, is jointly promoted by the Corporate Strategy Department, Administration & Legal Department and Auditing Department.

Reference: Corporate Governance P.44

Integrated Risk Management

JAPEX prepares a risk matrix by identifying and evaluating Company-wide risks. Each division identities risks in light of such matters as the characteristics and geographical locations of its business operations as well as relevant regulatory conditions, then quantitatively assesses each risk from the perspectives of probability of its materialization and its estimated magnitude. The Risk Management Committee is tasked with annually deliberating and approving the risk matrix which is, in turn, reported to the Board of Directors. In addition, risks deemed to bear significant importance are publicly disclosed via the Securities Report and the corporate website.

The following table features an excerpt of risks considered particularly significant in terms of their impact on business management, summarizing JAPEX's recognition of and its policies for response to such risks in four business categories: "Company-wide business portfolio," "E&P Business," "Infrastructure/Utility Business" and "New Businesses (mainly associated with CCS)." A majority of risk items are relevant to the growing need for climate change response. To date, the Company has striven to address these risk factors by, for example, participating in verification testing aimed at commercializing CCS/CCUS, strengthening its renewable energy business structure and expanding the volume of natural gas supply. Furthermore, in May 2021 the Company announced JAPEX 2050 to step up its policies for response to these matters. JAPEX intends to clarify further details of its risk response measures via the announcement of its new Medium-term Business Plan, scheduled for fiscal 2021, as part of its ongoing efforts to pursue business growth and realize sustainable supply of energy.

Please visit the following link to see the detailed risk information posted on our corporate website.

Risk Information
https://www.japex.co.jp/en/ir/management/riskinfo/

▼ Recognition of Medium- to Long-term Risks and Policies in Response

Business category	Medium- to long-term risks recognized	Risk mitigation policies
Company-wide business portfolio	Fluctuations in crude oil and natural gas prices Rapid transition to a decarbonized society	• Shift to a business portfolio that is resilient against low crude oil prices (by making the renewable energy business profitable, creating new businesses, such as CCS/CCUS, and expanding such businesses) • Pursue a low-carbon and decarbonized business portfolio (to reduce GHG emissions in line with JAPEX's target of achieving carbon neutrality in 2050)
E&P Business	Declining volume of oil and gas reserves	• Develop residual production potential in Japan • Acquire new interests overseas
	Rapid transition to a decarbonized society	• Shift the focus of the E&P business to natural gas • Introduce CCS/CCUS in participating projects
Infrastructure/Utility Business	Decline in domestic natural gas production	• Procure LNG with competitiveness
	Rapid transition to a decarbonized society	• Expand the renewable energy business • Decarbonize power generation and gas businesses (by introducing carbon-neutral LNG and thermal power generation facilities with CCS) • Horizontally deploy various supply methods for natural gas and LNG targeting overseas markets
New businesses mainly associated with CCS	Resolve issues related to CCS/CCUS operations to achieve the early commercialization of these businesses in Japan	• Push ahead with both technological and marketing endeavors, including securing CO_2 storage capacities, promoting cost reductions and taking initiative in rule making

Risk Management

Business Risk Assessment

In order for the Company to seize opportunities for business expansion and achieve the goals of the Medium-term Business Plan, the proper management of business risks is of critical importance. With this in mind, JAPEX develops and maintains a process for evaluating and managing business risks in the course of investment decisions associated with various projects, as well as the execution and operation stages of these projects.

Investment Decision Stage

When making investment decisions that would entail a certain level of financial burden, we employ the Decision Gate (DG) process consisting of four phases (see the diagram below). This process identifies risks and opportunities associated with such decisions from technical, economical, commercial, organizational and political-social (TECOP) perspectives, with Decision Gate Reviews (DGRs) being carried out to evaluate and discuss countermeasures to be implemented by the Company and other matters. Items examined via each DGR are also presented below.

The Investment Evaluation Committee, which takes on DGR-4, evaluates the appropriateness of investment by taking into account not only the economic potential of the project but also a broad range of business risks, including those associated with ESG and geopolitical issues.

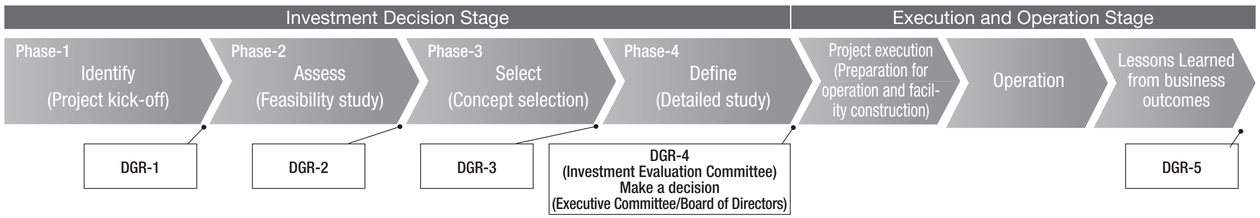
Moreover, the recent shift in the business environment in connection with climate change has been radical. In conjunction with this shift, since fiscal 2020, efforts have been under way, in countries and regions where each project takes place, to step up monitoring of the status of carbon tax introduced along with government-led reduction targets for GHG emissions and other local regulatory trends. Results of each DGR are reported to the Executive Committee, which is authorized to give final approval on investment, and the Board of Directors.

Execution and Operation Stage

The status of projects in the execution and operation stage is overseen by management and corporate divisions via monitoring at the Risk Management Committee, which employs a cross-sectional approach to quantitatively identify and assess each risk, with the aim of maintaining appropriate business management.

Insights and takeaways acquired in the course of business operations ("Lessons Learned") are reviewed via the DGR-5 to utilize such lessons in future investment decisions. The DGR-5 is mainly focused on identifying factors contributing to the success or failure of each project to strengthen and improve the business risks assessment and management process. In August 2021, we performed the DGR-5 regarding the divestment of our Shale Gas Project interest in Canada, which was announced in May 2021.

▼ DG Process Overview



Deliberation Topics	New investment projects that could have a particularly significant impact on the Company's business and investment projects that will be undertaken as additions to existing projects				Major overseas E&P projects and some domestic projects	
Evaluation Points	Confirm the project's alignment with strategy, then identify risks and opportunities based on assessments of the external environment	Identify all alternative options and evaluate their feasibility, risks, and opportunities	Select the concept delivering maximum value	Get ready/Prepare to proceed into execution phase	Review the progress of project execution	Add to knowledge for future projects
Rules and Guidelines	Decision Gate Process and Guidelines					
	Investment Evaluation Committee Rules Investment Evaluation Guidelines				Risk Management Committee Rules Project Management Guidelines	

Emergency Response and Business Continuity Plans

To ensure appropriate response to emergencies, we have in place Emergency Countermeasure Regulations and relevant procedures in addition to various response manuals.

At the time of an emergency, business departments and major fields play a central role in information gathering, intragroup communications and employee instructions in accordance with processes set forth in the aforementioned documents. Depending on the situation, the Emergency Response Headquarters will be set up at JAPEX's Tokyo Headquarters and work together with Local Emergency Response Headquarters established at major fields, including district offices.

Moreover, emergency drills are conducted at least once a year at the Headquarters, district offices and other major fields. Drawing on takeaways from these drills, we are continuously striving to improve our processes for emergency response.

We also develop Business Continuity Plans (BCPs) to secure our ability to continue operations at times of a major earthquake, the outbreak of infectious diseases and other incidents that would severely impact social activities.

Moreover, we have prepared manuals for initial responses to large-scale disasters. Based on these manuals, emergency drills are being conducted at each business site along with periodic employee safety confirmation drills and walk-home (from work) drills.

Reference: JAPEX's initiatives to realize stable energy supply P.28

Information Security

JAPEX has in place the Information Security Committee, which deliberates important matters associated with how to ensure the proper and secure management of information and facilitate its efficient utilization, thereby maintaining a robust information security management system.

Under this system, we have formulated such documents as Information Security Policy, Personal Information Protection Policy and Guidelines for the Handling of Personal Information while developing and maintaining our IT platforms.

As for crisis management, we are continuously reviewing and improving the technical aspects of cyber-attack countermeasures. We also provide regular education on information security to our employees to raise their awareness and prevent the occurrence of security incidents.

Compliance and Respect for Human Rights

Basic Concept

JAPEX is striving to establish a corporate culture of compliance with laws, regulations, conventional wisdom and social norms where all executives and employees act ethically and with integrity.

In line with the JAPEX Group Code of Ethics and Conduct, the Company has declared its commitment to respecting human rights and not tolerating any forms of discrimination and harassment, and is engaged in initiatives to advocate for human rights.

Compliance
https://www.japex.co.jp/en/sustainability/governance/compliance/

Respect for Human Rights
https://www.japex.co.jp/en/sustainability/social/humanrights/

Compliance

Promotion System

To strengthen our risk management system, the Risk Management Committee was established in fiscal 2021 via the integration of the Internal Control Committee, which had been tasked with deliberating compliance-related matters, and the Project Total Management Committee, which had been charged with business project risk management. Chaired by the President, the Risk Management Committee is engaged in the discussion of structures and policies for ensuring the appropriate execution of business operations and verifying potential incidents of compliance violation.

Based on the JAPEX Group Code of Ethics and Conduct, we have also formulated a compliance manual, which summarizes key requirements and standards to be observed in the course of business operations, as well as a booklet featuring commentaries on compliance case studies. These documents are updated on an as necessary basis, with the latest versions distributed to all employees. In these ways, we strive to promote thorough compliance and ensure that our action is always guided by corporate ethics.

Prevention of Bribery and Corruption

The JAPEX Group Code of Ethics and Conduct stipulates that the Company shall maintain sound and transparent relationships with politicians, political parties and government officials/agencies. Based on this code, the compliance manual provides detailed requirements to be observed. These requirements are understood and practiced by each executive and employee.

The Group also established the Anti-Bribery Guidelines that stipulate such matters as the development of a system for ensuring strict compliance with relevant laws and regulations and the clarification of internal authorization procedures. In line with these guidelines, we implement periodic self-checks, anti-bribery training and other measures to prevent bribery incidents in an effective manner.

There were no incidents involving the violation of the Anti-Bribery Guidelines in fiscal 2020. Furthermore, we do not make any political contributions.

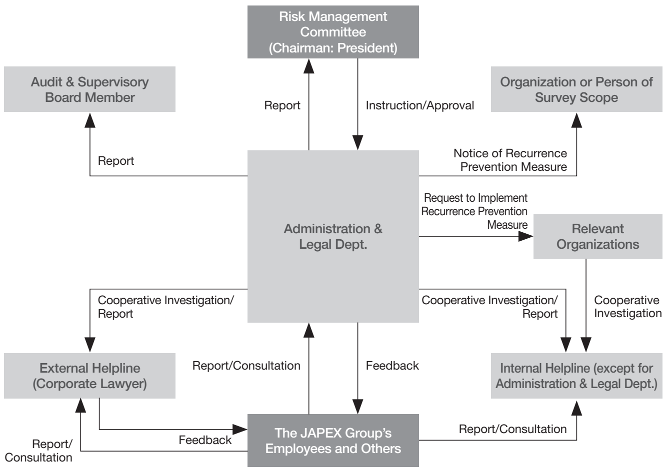
Education

We have defined CSR, compliance and insider trading prevention as three basic items deserving attention of all executives and employees in the course of their daily operations. Accordingly, lectures on these topics are mandatory for all and incorporated into training for new hires and career stage training, both of which are conducted annually.

Report and Consultation System

The JAPEX Group has a system for receiving reports on and/or consultation about issues associated with compliance requirements, including respect for human rights, fair procurement and trade, as well as the maintenance of proper and appropriate relationships with politics and governments. The system secures an external helpline through which employees can directly report to or consult with corporate lawyers while ensuring strict confidentiality to enable anonymous reporting and consultation. We also prohibit the detrimental treatment of those who use the system and otherwise strive to protect whistleblowers. In fiscal 2020, one case was reported via this system and was handled appropriately.

▼ Report & Consultation System



Respect for Human Rights

The JAPEX Group Code of Ethics and Conduct states that the Company shall "Respect the human rights of all people." This statement is particularly relevant to universal human rights issues such as the prevention of slave labor and human trafficking. Based on this code, our compliance manual requires compliance with international standards associated with human rights, including the Universal Declaration of Human Rights, the International Bill of Human Rights, the ILO International Labour Standards, and the United Nations Global Compact.

With regard to transactions with suppliers, our Basic Policy on Procurement clarifies that they are asked to comply with the spirit and text of human rights-related legal regulations in addition to adhering to relevant ethical standards and social norms. Thus, we strive to avoid transactions that debase the trust society has placed in us. Looking ahead, we will launch such initiatives as discussion to promote the development of systems for human rights due diligence.

Initiatives Related to Preventing Slave Labor, Preventing Human Trafficking, and Protecting the Rights of Indigenous Peoples

In our overseas businesses, we consider it extremely important to tackle issues associated with the rights of indigenous peoples, respect their cultures and customs, and address concern for human rights. For the Canada Oil Sands Project, we have put in place a system that incorporates the views of local indigenous people and pursue business in cooperation with them. In line with the UK Modern Slavery Act 2015, which was enacted with the aim of requiring companies to identify and eradicate any and all instances of slave labor and human trafficking across their supply chains, the JAPEX Group releases a statement on its website every year detailing its relevant policies and initiatives.

For details on how we comply with the UK Modern Slavery Act, refer to the following URL.
https://www.japex.co.jp/sustainability/uploads/JAPEXStatement_ModernSlaveryAct.pdf

Countermeasures against Harassment

To prevent workplace harassment, which hinders the creation of an inclusive working environment, we have in place Rules on the Prevention of Harassment. Moreover, in fiscal 2020, we provided executives and all other managers with training on harassment. With the aim of raising employee awareness on a daily basis, we distribute periodic newsletters featuring articles centered on the prevention of harassment while maintaining a dedicated information website accessible via the intranet to provide employees with updates on these topics. If an incident involving harassment (as defined by the aforementioned rules) occurs, we carefully conduct interviews with individuals involved and take strict disciplinary action while issuing a reminder to employees to prevent similar incidents from recurring.

Corporate Governance

Basic Concept

JAPEX recognizes contributing to society through stable energy supply as its mission and helping to realize the sustainable development goals by addressing social issues as its Corporate Vision. To achieve its Corporate Vision and maximize its corporate value from both the medium and long term perspectives, efficient and transparent corporate management and the building of relationships of mutual trust with stakeholders, including shareholders, by ensuring its accountability are required. Therefore, sound corporate governance, which is foundational to the Company, is one of its most important challenges.

We will respect the letter and the spirit of the Corporate Governance Code in our effort to enhance our corporate governance.

For more information on Corporate Governance, see the webpage below.
https://www.japex.co.jp/en/sustainability/governance/cg/

Initiatives to Strengthen Corporate Governance

2015
Increased the number of outside directors (1→2)

2016
Increased the number of outside directors (2→3)

2017
Began evaluating the effectiveness of the Board of Directors

2018
Reformed the executive officer system

2019
- Established the Nomination and Compensation Advisory Committee
- Amended the Code of Conduct to establish the Code of Ethics and Conduct
- Changed the title and composition of the Executive Committee

2020
- Increased the number of outside directors (3 to 4) Raised the ratio of outside directors to more than one-third
- Shortened director terms from two years to one
- Introduced a performance-linked share-based compensation plan

2021
Established the Sustainability Committee and the Risk Management Committee

Governance Structure

Overview of JAPEX's Governance Structure

- Company with Audit & Supervisory Board
- Introduced an Executive Officer System to clarify the business execution system
- The ratio of outside directors is more than one-third, the ratio of outside Audit & Supervisory Board members is more than half
- Held the Outside Director Liaison Meeting as a place to provide explanations to, provide information to, and exchange information with outside directors in advance of Board of Directors proposals
- All outside directors and Audit & Supervisory Board members who fulfill independent officer qualifications are designated as independent officers

1 Board of Directors
Meetings held in FY2020: 14 times
The Board of Directors discusses and makes decisions concerning important business execution as well as the exclusive prerogatives of the Board of Directors. It is regularly held once a month.
- Chairman: Representative Director and President, FUJITA Masahiro
- Composition: 11 directors (including four outside directors)

2 Executive Committee
Meetings held in FY2020: 22 times
From the standpoint of accelerating the speed of decision-making, the Executive Committee is composed of directors and other executives based at the headquarters to make decisions on matters not reserved for the decision-making standard of the Board of Directors. The Executive Committee also holds discussions to assist the decision-making of the Board of Directors and meets, in principle, two times each month, with extraordinary meetings held as needed.
- Chairman: Representative Director and President, FUJITA Masahiro
- Composition: 7 directors and 8 executive officers

3 Nomination and Compensation Advisory Committee
Meetings held in FY2020: 2 times
Nomination and Compensation Advisory Committee discusses the procedures to make decisions concerning the nomination and compensation of directors. It is organized under the Board of Directors, in order to further enhance the supervisory function of the Board of Directors.
- Chairman: Representative Director and President, FUJITA Masahiro
- Composition: Four directors (including two outside directors)

4 Audit & Supervisory Board
Meetings held in FY2020: 9 times
Four Audit & Supervisory Board Members, two of which are outside Audit & Supervisory Board Members, attend the Board of Directors and Outside Officer Liaison meetings. Full-time Audit & Supervisory Board members attend the Executive Committee and other important management meetings to perform the function of management supervision by exchanging opinions as necessary with Directors and Executive Officers responsible for business execution.
- Chairman: Full-time Audit & Supervisory Board member, SHIMOMURA Koichi
- Composition: Two full-time Audit & Supervisory members and two outside Audit & Supervisory members

5 Sustainability Committee
Established in April 2021
The Sustainability Committee deliberates the long-term vision, the medium-term business plan and ESG management. The committee was formed by integrating and strengthening the existing structure of the former CSR Committee.
- Chairman: Representative Director and President, FUJITA Masahiro

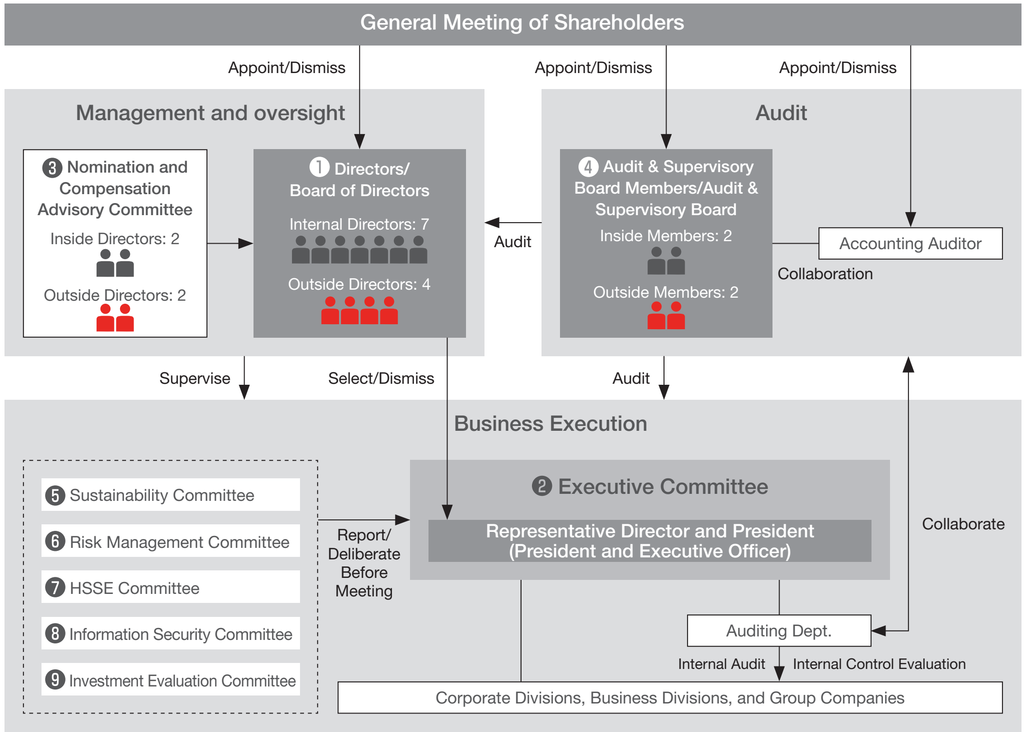
6 Risk Management Committee
Established in April 2021
The Risk Management Committee deliberates mainly on the following matters: evaluation and management of risks related to management, management of major project progress and formulation of internal control policies, and verification of non-compliance cases. The committee was formed by reorganizing and strengthening the former Internal Control Committee.
- Chairman: Representative Director and President, FUJITA Masahiro

7 HSSE Committee
Meetings held in FY2020: 2 times
Deliberation of risks related to HSSE
- Chairman: Managing Executive Officer, NAKAMURA Tsuneta

8 Information Security Committee
Meetings held in FY2020: 1 time
Deliberation of risks related to information security
- Chairman: Managing Executive Officer, MATSUNAGA Tadashi

9 Investment Evaluation Committee
Meetings held in FY2020: 3 times
Verification of risks and appropriateness of investments in important projects
- Chairman: Director and Managing Executive Officer, YAMASHITA Michiro

Corporate Governance and Internal Control Structure (As of July 5, 2021)



Corporate Governance

Evaluation of the Effectiveness of the Board of Directors

We evaluate the effectiveness of the Board of Directors once every year, and the results of the evaluation are confirmed at the Board of Directors meeting. The evaluation method and overview of the evaluation conducted in fiscal 2020, the fifth such evaluation, is as follows.

1. Evaluation Method

A survey created by the Board of Directors secretariat

- Scope of evaluation: All directors and all Audit & Supervisory Board members
- Period of evaluation: Between April 2020 and March 2021 (one year)
- Evaluation conducted: Between March and April 2021
- Evaluation items
  - ① Composition of the Board of Directors (number of directors, diversity, knowledge, experience, and skills)
  - ② Operation of the Board of Directors (meeting frequency, deliberation time, content and amount of materials, number of agenda items, and other operational conditions)

2. Overview of the Evaluation Results

The effectiveness of the Board of Directors was evaluated as being assured overall. To further enhance and stimulate the functions of the Board of Directors, the following issues were confirmed, including medium-term initiatives.

- Enhancing the operation of the Outside Officer Liaison Meeting, which is a place where outside officers receive explanations of agenda items prior to Board of Directors meetings (effectively operating liaison meetings to ensure lively discussions at Board meetings)
- Holding further discussions related to the Long-term Vision, Medium-term Business Plan, allocation of management resources, and other topics
- Holding further discussions related to looking back on projects
- Continually considering the status of diversity
- Further sharing information related to discussions of the Executive Committee
- Further sharing information related to discussions between departments on agenda items
- Detailed discussions related to a succession plan and human resource development

3. Initiatives Going Forward

Based on the results of the Board of Directors Effectiveness Evaluation, we respond to the issues that are identified. Going forward, we will continue working to further enhance the functionality of the Board of Directors by periodically identifying issues regarding day-to-day operations through surveys of attendees at Board of Directors meetings.

Message

Outside Director's Message
Issues of the Evaluation of the Effectiveness of JAPEX's Board of Directors

KAWASAKI Hideichi, Outside Director

Fiscal 2020 began and ended with the COVID-19 pandemic. It was also a year of major changes in trends around the world and an extremely significant milestone for our business. One change was a huge decline in oil prices, and another was a rapid turn toward global decarbonization. Japan, which has been considered relatively conservative by other countries, also took a big turn on environmental countermeasures. The Japanese government declared that it aims to achieve zero greenhouse gas emissions overall by 2050, realizing carbon neutrality and a low-carbon society. I will omit details of our targets for 2030, which is the transition period, but this trend will unmistakably accelerate. These circumstances must have a major impact on our business. This, of course, carries risks and opportunities. As an urgent matter, the impact of oil prices will directly affect business earnings. Oil prices have risen temporarily, but there is no guarantee that it will always continue. Amid this situation, we revised the assumption for business operation from an oil price of U.S.$60 to U.S.$50 and are reconsidering various business plans. We have many considerations, such as a revision of the business portfolio and a revision of the profitability of overseas business. We also made such business decisions as withdrawing from the Shale Gas Project in Canada and concluding the Oil Sands Project in Canada. Going forward, we expect this trend to continue accelerating.

Amid this environment, we recognize that the Board of Directors fulfills an important role. To enhance the discussions at the Board of Directors, we hold liaison meetings for important agenda items. With the attendance of outside directors and outside Audit & Supervisory Board members, detailed briefings are conducted from relevant departments and many questions are asked there. Those that cannot be answered on the spot are responded to prior to Board of Directors meetings or, if that cannot be done in time, they are added to the briefings given at the Board meetings. In this way, because the understanding of the outside directors prior to meetings has been enhanced, discussions at Board meetings have also been enhanced, and lively discussions and deliberations are being held from multifaceted perspectives. The skills of outside directors on the Board of Directors are as described in the notice of convocation of the ordinary shareholders meeting, and various structures enable the multifaceted discussions of overall business. Evaluations of the effectiveness of the Board are conducted every year, where evaluations and the identification of issues are done in an effort to further enhance the operation of and deliberations at the Board.

A major issue from fiscal 2021 onward is the necessity of enhancing discussions on medium- to long-term growth strategies considering business environment changes. We recognize that during this fiscal year we will need to consider a new medium-term plan and many discussions will be held. Discussions centered on headquarters departments are important, but we should also consider the situation and opinions of frontline departments. In fiscal 2020, there were unfortunate impacts from the pandemic, and we were largely unable to directly observe frontline operations. However, we were able to observe the Fukushima Natural Gas Power Plant, which began full-scale operations. We were able to enhance our understanding by observing the smooth launch of business, which is the heart of the current long-term vision that sets the profit composition ratio of E&P Business to non-E&P businesses at six to four. As I said before, we expect the decarbonization trend to accelerate, and the role of the natural gas business is growing in importance. In addition, it is important to pursue the possibilities of the Company's technologies and new technologies, such as CCS/CCUS, and working to directly take on the issue of CO_2 reduction. The issues to be considered to achieve that are piling up, such as the necessity of investment and further revision of the business portfolio. Of course, this does not mean that petroleum will instantly disappear from the world. The sustainability of the E&P Business is another issue. It is obvious that business execution departments will consider these issues. I intend to continue working to be able to provide solid advice and hold positive discussions so that the Board of Directors can manage business in response to business environment changes.

Corporate Governance

Executive Compensation

JAPEX has introduced a performance-linked share-based compensation plan for directors, excluding outside directors, and executive officers who are not also directors. The policies related to determining the amount of compensation for officers and the calculation method are as follows.

1. Director Compensation

Regarding the compensation of directors, the compensation structure can function as an incentive to sustainably enhance corporate value. When deciding the compensation of individual directors, our basic policy is to set an appropriate level in consideration of the roles aligned with their position. Specifically, the compensation of directors, excluding outside directors, comprises base compensation and performance-linked compensation (bonuses and share-based compensation). Compensation for outside directors is only base compensation, considering their duty of supervising management.

Policy related to base compensation (monetary compensation)

- The base compensation of the Company's directors is fixed monthly monetary compensation and is decided in comprehensive consideration of their position, balance with public markets and employee pay, number of years employed, and more.

Policies related to performance-linked compensation and non-monetary compensation

- Of performance-linked compensation, bonuses are based on consolidated net income as an indicator measuring their contribution to results for the corresponding fiscal year. Specifics are decided in comprehensive consideration of their position, dividends, the level of employee bonuses, their contribution of directors to corporate management in each fiscal year, past results, payment record, and more.
- Of performance-linked compensation, share-based compensation is based on the officer compensation share provision rules approved by the Board of Directors within the limit approved at the General Meeting of Shareholders. JAPEX shares equivalent to the number of points provided in line with their positions and performance (using annual dividend amounts as a general rule as an indicator of performance evaluation from the perspective of maintaining our basic policy on long-term stable dividends) and a monetary amount equivalent to the market share price of said shares is provided as a general rule to directors upon retirement.

Policy related to compensation ratios

- We aim for the ratio of performance-linked compensation (bonuses and share-based compensation) to total compensation to be around 30% at standard amounts. To ensure the compensation system can function as an incentive to sustainably enhance corporate value, we will consider revising the ratio as appropriate.

Matters related to determining compensation

- Based on a resolution by the Board of Directors regarding individual compensation, the representative director and president is entrusted with the specific details. That authority enables the allocation of bonuses based on each director's base compensation and the directors' contribution to corporate management. It also enables the setting of the specific timing of the payment.
- Calculation methods for base compensation and bonuses are deliberated in advance at the Nomination and Compensation Committee. The representative director and president must decide the method with respect to the results of the deliberations.
- The provision of points for share-based compensation is reported in advance of the Nomination and Compensation Committee.

2. Audit & Supervisory Board Member Compensation

Audit & Supervisory Board member compensation is decided through discussions of the Audit & Supervisory Board members within the scope of compensation framework decided on by resolution of the General Meeting of Shareholders.

3. Indicator Targets and Results Related to Performance-Linked Compensation

Performance-linked compensation comprises bonuses and share-based compensation. When calculating performance indicators, consolidated net income is used as an indicator for bonuses to measure the contribution to full-year results, and the amount of annual dividends is used as an indicator for share-based compensation as a performance evaluation under the Company's basic policy to maintain long-term stable dividends. Regarding the setting of these indicators, we aim to raise awareness of steadily enhancing performance during the fiscal year and raise awareness of enhancing medium- to long-term results and significantly contributing to corporate value. In addition, the amount of performance-linked income is decided in accordance with our policy on deciding direction compensation. Targets for the bonus indicator within performance-linked compensation (consolidated net income) are not currently set because of the difficulty of accurately establishing a figure that functions as an incentive and the not insignificant effects on the Company's results from external factors, such as crude oil and natural gas prices and fluctuations in exchange rates. The corresponding indicator outcome for fiscal 2020 was a consolidated net loss of ¥2.7 billion. In addition, the target for the share-based compensation indicator within the performance-linked compensation (annual dividend amount) was ¥50 per share, and the fiscal 2020 result was ¥50.

4. Limit on Director Compensation

At the Ordinary General Meeting of Shareholders held on June 24, 2016, a resolution was passed to limit director's monthly base compensation to ¥50 million (amended to limit the outside director portion of that total to ¥4 million). Regarding bonuses, the total amount is resolved at the General Meeting of Shareholders every fiscal year.

Amount of Compensation for Directors and Audit & Supervisory Board Members (FY2020)

Executive category	Total compensation amount (Millions of yen)	Total amount of compensation by type (Millions of yen)			Number of eligible officers
		Base compensation	Bonuses	Share-based compensation	
Directors (excluding outside directors)	377	326	40	10	9
Audit & Supervisory Board members (excluding outside Audit & Supervisory Board members)	42	42	—	—	2
Outside officers	63	63	—	—	6

Notes: 1. The number of eligible officers displayed above includes one director who retired upon the conclusion of the 50th Ordinary General Meeting of Shareholders held on June 26, 2020.
2. The aforementioned share-based compensation comprised the provision equivalent to the amount related to the acquisition points in share-based compensation that were awarded during the fiscal year.

Corporate Governance

Directors, Audit & Supervisory Board Members and Executive Officers (As of July 1, 2021)

• The date the board members were appointed appears in parentheses next to their years in office.

Directors

*1 Executive officer system amended in June 2018
*2 KOJIMA Akira, ITO Tetsuo, YAMASHITA Yukari and KAWASAKI Hideichi are outside directors as stipulated under Article 2-15 of the Companies Act of Japan.

Representative Director
and Chairman

WATANABE Osamu

1964 Joined the Ministry of International Trade and Industry (MITI), later became Vice Minister of International Trade and Industry and served as Chairman of Japan External Trade Organization (JETRO)
2007 Joined JAPEX, served as Executive Vice President and President
2016 Assumed his current position in June

Years in Office: 14 years (June 2007)

Representative Director
and President
Chief Executive Officer

FUJITA Masahiro

1977 Joined the Ministry of International Trade and Industry (MITI), later became the head of the Trade and Economic Cooperation Bureau at the Ministry of Economy, Trade and Industry (METI) and served as Sumitomo Corporation's Representative Director, Executive Vice President
2019 Joined JAPEX, served as Representative Director and Executive Vice President
2019 Assumed his current position in October

Years in Office: 2 years (June 2019)

Representative Director
Executive Vice President

OZEKI Kazuhiko

Advisor to President, President of Overseas Project Management Division, In charge of the Secretary Office

1980 Joined JAPEX, served as General Manager of Iraq Project Dept., International Oil & Gas Division, Vice President of Iraq Project Division, Vice President of Middle East, Africa & Europe Project Division, President of Environment and Innovative Technology Projects Division, Executive in charge of Corporate Strategy Dept., and Executive in charge of Media & Investor Relations Dept., Executive in charge of Commercial Office for Overseas Projects, Executive in charge of New Business Promotion Office, President of Asia & Oceania Project Division
2021 Assumed his current position in June

Years in Office: 6 years (June 2015)

Representative Director
Executive Vice President

ISHII Yoshitaka

Advisor to President, President of the Power Business Division

1981 Joined JAPEX, served as General Manager of Technical Dept., Nagaoka District Office, General Manager of Nagaoka District Office, Domestic Project Division, In charge of the Gas Pipeline Transportation Dept., Vice President of Interregional Gas Supply Division, President of Soma Project Division, President of the Soma Project & Power Business Division
2021 Assumed his current position in June

Years in Office: 3 years (June 2018)

Director
Senior Managing Executive Officer

ITO Hajime

President of the Americas & Russia Project Division

1980 Joined the Ministry of International Trade and Industry (MITI), later became Deputy Director-General of the Ministry of Economy, Trade and Industry (METI)
2010 Joined JAPEX, served as President of Americas & Russia Project Division
2016 Became Managing Executive Officer*1 in June
2021 Assumed his current position in June

Years in Office: 5 years (June 2016)

Director
Managing Executive Officer

HIRATA Toshiyuki

President of Middle East, Asia & Europe Project Division

1981 Joined JAPEX, served as President of Canada Oil Sands Co., Ltd., Executive in charge of the Canada Oil Sands Project
2017 Became Managing Executive Officer*1 in June
2018 Assumed his current position in June

Years in Office: 4 years (June 2017)

Director
Managing Executive Officer

YAMASHITA Michiro

Finance & Accounting Dept.

1982 Joined JAPEX, served as General Manager of Corporate Planning Dept., Vice President of Environment and Innovative Technology Projects Division, and Executive in charge of Finance & Accounting Dept.
2018 Assumed his current position in June

Years in Office: 3 years (June 2018)

Outside Director

KOJIMA Akira*2

1965 Joined Nikkei Inc. and served as its Director, Chief Editor and Senior Managing Director, later served as Chairman at Japan Center for Economic Research and Adjunct Professor at National Graduate Institute for Policy Studies
2015 Assumed his current position at JAPEX in June
Concurrently serves as a member of the Board of Trustees and Adjunct Professor at National Graduate Institute for Policy Studies and as President of the Center for International Economic Collaboration

Years in Office: 6 years (June 2015)

Outside Director

ITO Tetsuo*2

1975 Appointed as a prosecutor, served as Head of Special Investigation Force, Tokyo District Public Prosecutors Office, and as Deputy Prosecutor-General, Supreme Public Prosecutors Office
2016 Assumed his current position at JAPEX in June
Concurrently serves as a Registered Attorney (Daiichi Tokyo Bar Association), Of Counsel at Nishimura & Asahi, Outside Auditor at Takasago Thermal Engineering Co., Ltd., and Outside Auditor at Asahi Kasei Corporation

Years in Office: 5 years (June 2016)

Outside Director

YAMASHITA Yukari*2

1985 Joined the Institute of Energy Economics, Japan, reached the position of Director and Head of the Climate Change and Energy Efficiency Unit, became a Board Member at the Institute and Director in charge of the Energy Data and Modelling Center
2019 Assumed her current position at JAPEX in June
Concurrently serves as a Managing Director of the Energy Data and Modelling Center at the Institute of Energy Economics, Japan and as Vice President of the International Association for Energy Economics, Inc.

Years in Office: 2 years (June 2019)

Outside Director

KAWASAKI Hideichi*2

1970 Joined Oki Electric Industry Co., Ltd., served as President, Representative Director and as Chairman of the Board, Representative Director
2020 Assumed his current position at JAPEX in June
Concurrently serves as Chairman of the Board of Oki Electric Industry Co., Ltd.

Years in Office: 1 year (June 2020)

Corporate Governance

Audit & Supervisory Board Members

*1 WATANABE Hiroyasu and NAKAJIMA Norio are outside Audit & Supervisory Board members as stipulated under Article 2-16 of the Companies Act of Japan.
*2 Fellows support executives through their high degree of expertise in specialized fields.

Audit & Supervisory Board Member

SHIMOMURA Koichi

1982 Joined JAPEX, served as General Manager of the Media & Investor Relations Dept., General Manager of International Planning Dept., International Oil & Gas Division, General Manager of First Project Dept., International Oil & Gas Division, General Manager of Canada Oil Sands Project Dept., Americas & Russia Project Division, Advisor to President of America & Russia Project Division, Advisor to President of Middle East, Africa & Europe Project Division
2018 Assumed his current position in June

Audit & Supervisory Board Member

NAKAMURA Mitsuyoshi

1982 Joined JAPEX, served as Vice President of Middle East, Africa & Europe Project Division; General Manager of HSE Dept.; Advisor to President of Middle East, Africa & Europe Project Division and Chief of Dubai Representative Office, Middle East, Africa & Europe Project Division; Assistant to Managing Executive Officer of Middle East, Asia & Europe Project Division; and Assistant to Managing Executive Officer of HSE Dept.
2021 Assumed his current position in June

Outside Audit & Supervisory Board Member

WATANABE Hiroyasu*1

1969 Joined the Ministry of Finance where he served as Director-General of the National Tax Agency, and also served as Professor of Graduate School of Finance, Accounting and Law, Waseda University
2015 Assumed his current position at JAPEX in June
Concurrently serves as Advisor of Hibiya Park Law Offices and President of the Japan Tariff Association

Outside Audit & Supervisory Board Member

NAKAJIMA Norio*1

1970 Joined the Industrial Bank of Japan, Limited (IBJ) where he served as its Managing Executive Officer and later in the same position at Mizuho Corporate Bank, Ltd., then served as President & CEO of DIAM Co., Ltd.
2014 Assumed his current position at JAPEX in June

Executive Officers and Fellows

Senior Managing Executive Officer	**SUGA Tsuyoshi**
Managing Executive Officer	**KAKU Senichiro**
Managing Executive Officer	**KUNIYASU Minoru**
Managing Executive Officer	**MATSUNAGA Tadashi**
Managing Executive Officer	**NAKAMURA Tsuneta**
Managing Executive Officer	**AMANO Masanori**
Managing Executive Officer	**MIYADAI Takamasa**
Managing Executive Officer	**NAKAJIMA Toshiaki**
Managing Executive Officer	**ABE Satoshi**
Executive Officer	**WAKISHIMA Ryohei**
Executive Officer	**TAKAHATA Shinichi**
Executive Officer	**TEZUKA Kazuhiko**
Executive Officer	**IKENO Tomonori**
Executive Officer	**KASA Hirofumi**
Fellow*2	**WASEDA Amane**

▼ FY2020 Attendance Record for Board of Directors and Each Committee

	Name	Board of Directors	Nomination and Compensation Advisory Committee
Directors	WATANABE Osamu	14/14	2/2
	FUJITA Masahiro	14/14	2/2
	HIGAI Yosuke (Retired in June 2021)	13/14	—
	OZEKI Kazuhiko	14/14	—
	ISHII Yoshitaka	14/14	—
	ITO Hajime	14/14	—
	HIRATA Toshiyuki	14/14	—
	YAMASHITA Michiro	14/14	—
	KOJIMA Akira (Outside)	14/14	2/2
	ITO Tetsuo (Outside)	13/14	2/2
	YAMASHITA Yukari (Outside)	14/14	—
	KAWASAKI Hideichi (Outside)	11/12	—

	Name	Board of Directors	Audit & Supervisory Board
Audit & Supervisory Board Members	UCHIDA Kenji (Retired in June 2021)	14/14	9/9
	SHIMOMURA Koichi	14/14	9/9
	WATANABE Hiroyasu (Outside)	14/14	9/9
	NAKAJIMA Norio (Outside)	14/14	9/9

Notes: • Number of meetings attended/number of meetings held
• The number of meetings held during the position period: Board of Directors meetings: 14 times (however, for KAWASAKI Yuichi, it was 12 times); Audit & Supervisory Board meetings: 9 times; Nomination and Compensation Committee meetings: 2 times.

▼ Reasons for Appointment of Outside Directors and Outside Audit & Supervisory Board Members

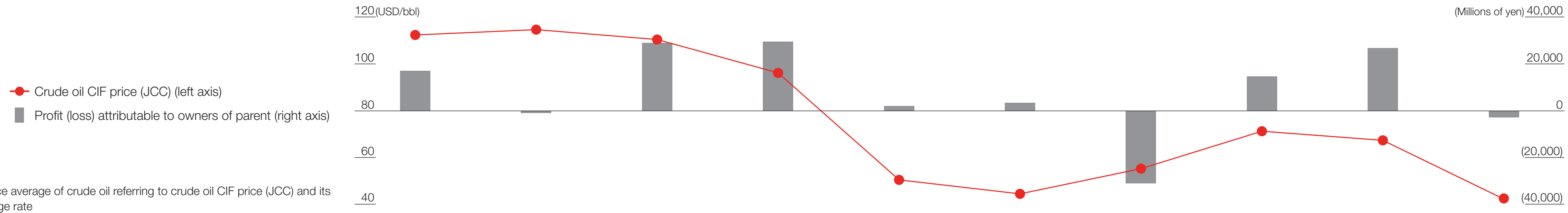
	Name	Reasons for Appointment
Directors	KOJIMA Akira	To use his extensive experience and distinguished insights gained through his career in a newspaper company and other entities in the Company's management
	ITO Tetsuo	To use his extensive knowledge and experience as a legal specialist in the Company's management
	YAMASHITA Yukari	To use the extensive knowledge of energy economics and energy-and environment-related public policy she acquired through focused research activities in the Company's management
	KAWASAKI Hideichi	To use his extensive experience and insights related to general corporate management in the Company's management
Audit & Supervisory Board Members	WATANABE Hiroyasu	To use his distinguished insights gained from his extensive experience as a graduate school professor and in government administration in the Company's management
	NAKAJIMA Norio	To use his distinguished insights gained from his extensive managerial experience with financial institutions in the Company's management

Financial and Other Information

Financial Highlights

(Fiscal years ended March 31)

		2012/3	2013/3	2014/3	2015/3	2016/3	2017/3	2018/3	2019/3	2020/3	2021/3
Crude oil CIF price (JCC)*1 (USD/bbl)		112.43	114.67	110.51	96.48	51.48	45.60	56.20	71.94	68.11	**42.91**
Exchange rate*1 (JPY/USD)		78.93	81.71	99.31	106.23	121.06	108.53	111.67	110.35	109.15	**105.86**
For Fiscal Year (Millions of yen)											
Net sales		230,638	231,086	276,588	304,911	240,302	207,130	230,629	267,980	318,822	**240,078**
Cost of sales		174,359	172,075	210,460	234,649	193,022	174,957	191,366	233,133	271,780	**203,543**
Exploration expenses		7,805	13,086	9,800	4,489	6,516	1,512	1,324	788	893	**989**
Selling, general and administrative expenses		33,426	32,017	31,692	33,625	32,426	29,975	29,173	31,743	31,864	**31,352**
Operating profit		15,045	13,906	24,634	32,146	8,336	685	8,764	2,313	14,283	⑬ **4,192**
Ordinary profit		22,159	28,082	43,889	54,839	4,652	2,222	3,828	12,523	32,635	**10,001**
Profit (loss) attributable to owners of parent		17,027	① (865)	29,015	29,567	2,090	3,443	⑨ (30,959)	14,770	26,815	⑭ **(2,725)**
EBITDA*2		46,042	43,046	53,905	61,963	31,200	21,887	33,211	41,736	58,296	**37,150**
Cash flows from operating activities		37,172	34,254	45,226	78,666	57,659	43,672	52,881	30,970	69,895	**43,263**
Cash flows from investing activities		(13,950)	(14,836)	④⑤ (131,600)	⑧ (63,031)	(125,771)	(84,686)	(54,218)	(13,969)	(18,701)	**(6,453)**
Cash flows from financing activities		9,856	(7,177)	71,680	18,475	54,816	18,360	(1,196)	(15,493)	(13,743)	**(15,626)**
Cash and cash equivalents at end of period		99,803	112,639	102,830	142,657	126,570	103,630	99,892	100,633	138,259	**157,963**
At Fiscal Year-End (Millions of yen)											
Total assets		532,890	525,172	663,038	736,862	707,601	746,739	699,536	655,288	627,132	**624,786**
Net assets		406,773	403,625	496,915	540,647	495,317	510,609	459,255	450,156	440,157	**434,492**
Long-term loans payable		26,198	24,197	21,636	20,726	130,030	141,903	135,959	127,715	118,774	**50,180**
Interest-bearing debt*3		82,165	77,325	98,345	121,827	163,575	176,012	170,193	151,726	140,848	**118,710**
Financial Ratios (Yen)											
Basic earnings (loss) per share		297.92	(15.14)	507.68	517.35	36.58	60.24	(541.70)	258.44	469.18	**(47.73)**
Return on Equity (%)		4.4	(0.2)	7.2	6.7	0.5	0.8	(7.2)	3.5	6.5	**(0.7)**
Debt-to-EBITDA ratio (times)		1.8	1.8	1.8	2.0	5.2	8.0	5.1	3.6	2.4	**3.2**
Net assets per share		6,869.27	6,691.58	7,389.62	8,055.59	7,366.40	7,655.26	7,438.23	7,287.32	7,046.18	**7,011.36**
Cash dividends per share (full-year)		40.00	40.00	50.00	50.00	50.00	15.00	20.00	40.00	50.00	**50.00**
Production Volume in the Fiscal Year (daily)*4 (Thousand boe/d)											
Production volume	Natural gas	22.8	23.3	26.4	32.3	34.0	33.7	31.2	28.1	26.6	**25.3**
	Crude oil	15.8	13.3	⑥ 21.8	42.1	39.7	38.3	29.5	⑪ 33.4	49.6	**36.3**
	Total	38.6	36.6	48.3	74.4	73.7	72.0	60.7	61.5	76.2	**61.7**
Proved Reserve Volume at Fiscal Year-End (Million boe)											
Proved reserves	Overseas	185	② 147	112	110	94	74	73	64	58	**51**
	Japan	38	③ 160	⑦ 193	203	255	277	⑩ 229	⑫ 323	296	**266**
	Total	223	307	305	313	349	352	302	387	355	**317**



2013/3:
① Impairment loss related to the Yufutsu Oil and Gas Field
② Downward revision of reserves upon evaluation of the Yufutsu Oil and Gas Field
③ Decision to invest in development in Canada Oil Sands

2014/3:
④ Investment in development of Canada Oil Sands
⑤ Participated in Canada Shale Gas Project
⑥ Began commercial production in Iraq Garraf Oil Field
⑦ Participated in Canada Shale Gas Project

2015/3:
⑧ Began construction of the Soma LNG Terminal

2018/3:
⑨ Impairment loss due to decision to end commercialization of the Canada LNG Project
⑩ Decision to end commercialization of the Canada LNG Project

2019/3:
⑪ Reached stable production of 20,000 barrels/d in Canada Oil Sands Project
⑫ Decided on additional development in Iraq Garraf Oil Field

2021/3:
⑬ Start of electric power sales after commencing operation of the Fukushima Natural Gas Power Plant, decrease in sales volume due to steep fall in crude oil prices and effects of the COVID-19 pandemic, etc.
⑭ Impairment loss related to business assets of oil and gas fields in Japan

*1 Domestic sales price average of crude oil referring to crude oil CIF price (JCC) and its conversion exchange rate
*2 EBITDA is the total of operating profit, depreciation, and interest and dividends received.
*3 Interest-bearing debt includes lease obligations, retirement benefit liabilities and contingent liabilities.
*4 Figures for crude oil include bitumen.

Conversion Factors and Units:
Crude oil 1 kL = 6.29 bbl
Crude oil 1 kL = Natural gas 1,033.1 m³
boe: barrels of oil equivalent
boe/d: barrels of oil equivalent per day

Non-financial Highlights

(Fiscal years ended March 31)

			2014/3	2015/3	2016/3	2017/3	2018/3	2019/3	2020/3	2021/3
Environment*1										
Greenhouse gas emissions (1,000 ton-CO_2) (Scope 1 + Scope 2)		Domestic	251	244	231	241	383	319	284	**268**
		Overseas					205	481	582	**548**
		Domestic + Overseas Total	251	244	231	241	589	800	866	**816**
Energy consumption (TJ)		Domestic	2,780	2,516	2,374	2,453	2,610	2,873	2,971	**3,102**
		Overseas					3,815	9,082	10,764	**10,936**
		Domestic + Overseas Total	2,780	2,516	2,374	2,453	6,425	11,955	13,734	**14,038**
Water withdrawal (1,000 kL)		Domestic	786	722	699	708	946	806	943	**871**
		Overseas					200	406	201	**293**
		Domestic + Overseas Total	786	722	699	708	1,146	1,212	1,144	**1,164**
Waste discharge (1,000 kL)		Domestic	1,017	984	982	992	1,250	1,081	1,212	**1,607**
		Overseas					140	260	282	**210**
		Domestic + Overseas Total	1,017	984	982	992	1,390	1,341	1,494	**1,816**
Society										
Occupational health and safety	Domestic*2	Frequency rate (mining field workers)*5	0.84	1.02	1.15	3.53	0.00	0.00	0.00	**0.00**
		Severity rate (mining field workers)*6	0.10	0.03	0.02	0.18	0.00	0.00	0.00	**0.00**
	Domestic*3	Fatal accident rate (FAR)*7						0.00	0.00	**0.00**
		Lost time injury frequency (LTIF)*8							0.00	**0.29**
		Total recordable injury rate (TRIR)*9							1.46	**0.58**
	Overseas*4	Fatal accident rate (FAR)*7				0.00	0.00	0.00	0.00	**0.00**
		Lost time injury frequency (LTIF)*8				0.00	0.00	0.00	0.00	**2.42**
		Total recordable injury rate (TRIR)*9				1.46	5.50	5.13	7.94	**7.25**
Number of employees	Consolidated		1,782	1,818	1,847	1,825	1,788	1,741	1,739	**1,780**
	Non-consolidated		874	886	902	897	920	904	919	**937**
Mid-career recruits	Non-consolidated		16	17	20	9	7	10	17	**30**
Turnover rate (%)	Non-consolidated			1.7	2.0	1.7	2.1	3.1	2.9	**3.6**
Average length of service (years)	Non-consolidated		18.0	17.6	16.6	17.1	17.3	17.9	17.1	**16.6**
Rate of women in management positions (%)*10	Non-consolidated		3.1	3.6	4.5	4.9	5.0	5.2	5.2	**5.9**
Employment rate of people with disabilities (%)	Non-consolidated		1.6	2.0	2.2	2.0	2.0	2.8	2.6	**2.8**
Rate of annual paid leave taken (%)	Non-consolidated	Percentage taken	63.0	66.5	72.0	70.5	70.3	74.1	77.4	**73.3**
Childcare and caregiving leave	Non-consolidated	Rate of childcare leave taken (male) (%)	0.0	3.2	2.4	21.1	18.6	28.9	44.1	**45.3**
		Rate of childcare leave taken (female) (%)	100	100	100	100	100	100	100	**100**
		Rate of employees returning to work after childcare leave (%)*11	100	100	100	100	100	100	100	**100**
		Retention rate after childcare leave (%)*12	100	100	100	100	100	100	100	**100**
		Number of employees taking nursing care leave	0	0	0	0	0	0	0	**1**

*1 Scope of Non-financial data
2014/3–2017/3: JAPEX and Japex Offshore Ltd.
2018/3–2020/3: JAPEX and its 12 consolidated subsidiaries
Domestic: Japex Offshore Ltd.; Akita Natural Gas Pipeline Co., Ltd.; SK Engineering Co., Ltd.; JAPEX SKS Corporation; North Japan Oil Co., Ltd.; Shirone Gas Co., Ltd.; Japex Pipeline Ltd.; JGI, Inc.; Geophysical Surveying Co., Ltd.; North Japan Security Service Co., Ltd.; and Japex Energy Co., Ltd.
Overseas: Japan Canada Oil Sands Ltd. (data collected from 2018/3)
2021/3: JAPEX and its 13 consolidated subsidiaries (GEOSYS Inc. in addition to the domestic subsidiaries listed in the scope detailed above)
*2 Scope of report: JAPEX and Japex Offshore Ltd.
*3 Scope of report: JAPEX and Japex Offshore Ltd. and its contractors
*4 Scope of report: Japan Canada Oil Sands Ltd. and its contractors
*5 Frequency rate = (Number of deaths and injuries caused by accidents/Number of hours worked) x 1,000,000
*6 Severity rate = (Number of days of work lost/Number of hours worked) x 1,000
*7 Fatal Accident Rate: The number of fatal accidents per 100,000,000 working hours.
*8 Lost Time Injury Frequency: The number of lost time injuries per 1,000,000 working hours.
*9 Total Recordable Injury Rate: The number of total recordable injuries per 1,000,000 working hours.
*10 Changed to the year-end figure from March 2021. With this change, the previous figures that were as of April 1 of the following fiscal year have been retroactively revised.
*11 Rate of employees returning to work after taking childcare leave = (Number of employees returning to work after taking childcare leave during a fiscal year/Number of employees expecting to return to work during a fiscal year after taking childcare leave) × 100
*12 Retention rate after childcare leave = (Out of employees returning to work in the previous fiscal year after taking childcare leave, number who remained employed as of March 31 of the current fiscal year/Number of employees returning to work after childcare leave in the previous fiscal year) × 100

ESG Data
https://www.japex.co.jp/en/sustainability/management/esgdata/

Third-Party Assurance of Environmental Data
To ensure the reliability for our disclosed information, JAPEX has obtained independent third-party assurance for certain environmental data accessible in 'ESG Data' on our website.

Glossary

Oil sands
Oil sands refer to sandstones containing crude oil that is extremely viscous like tar and lacking in fluidity, unlike the crude oil typically found in reservoirs. Crude oil recovered from oil sands is generally referred to as bitumen or extra-heavy crude oil in accordance with its viscosity.

Operator
A contractual term used in the exploration, development and production of oil and gas via collaboration between multiple partners; the "operator" is the partner commissioned to handle and manage actual operations. Any partner to the contract other than the operator is a "non-operator." Signing a joint operation contract, both the operator and non-operator determine methods for making operational decisions and raising necessary funds before they launch the project.

Greenhouse gas (GHG)
A gas in the atmosphere that absorbs a portion of the infrared radiation emitted from the earth's surface, thereby producing a greenhouse effect. Water vapor and carbon dioxide (CO_2) fall into this category. In recent years, the concentration of some of these gases in the atmosphere has been increasing, and they are considered to be the main cause of global warming.

Risk service contract
A contract between the government of a host country and an oil company where the oil company provides specified services for exploration, development and production of oil, in return for fixed payment or allocation of oil commensurate with its production volume. The proprietary rights of produced oil vests with the government.

Bioenergy with carbon capture and storage (BECCS)
A term coined to refer to a technology that links CCS and biomass energy. When biomass is burned for energy use, CO_2 is emitted, but it is not counted as CO_2 emissions because the amount of CO_2 emitted during the entire life cycle of biomass remains the same. If the CO_2 from biomass combustion is collected, transported, and stored underground, there will be a net reduction in atmospheric CO_2.

Carbon dioxide capture and storage (CCS)
Carbon dioxide capture, utilization and storage (CCUS)
CCS technologies separate and recover CO_2 from gas emissions of electric power plants, factories, and other facilities, then inject and store the CO_2 in stable underground geologic formations. CCUS technologies effectively use the separated and recovered CO_2 to enhance oil recovery and for other applications and then store it.

Cost, insurance and freight (CIF)
The CIF price for crude oil consists of the Free on Board (FOB) price, insurance, and freight costs to the destination port. The CIF price for crude oil is the FOB price plus insurance and tanker transportation costs to the destination port.

Direct air carbon capture and storage (DACCS)
DACCS is a combination of direct air capture (DAC) and CCS. The technology directly captures CO_2 from the atmosphere and stores it underground.

Enhanced/Improved oil recovery (EOR/IOR)
EOR, also known as tertiary recovery, involves the injection of heat, gaseous carbon dioxide or other chemicals into the reservoir. While primary recovery uses natural oil emission energy and secondary recovery increases the volume of oil recovered by maintaining or raising pressure in the oil sands layer, EOR alters the physical or chemical behavior of the residual crude oil, thereby enhancing oil recovery. IOR is a broader term referring to a range of methods aimed at improving oil recovery, including secondary recovery.

Exploration & production (E&P)
Businesses that engage in the exploration, development, production, transportation and sale of oil and gas.

Final investment decision (FID)
In the context of oil and gas projects, FID often refers to the final decision regarding investment before entering the development phase (i.e., facility design, procurement and construction). Prior to FID, relevant parties must meet all requirements, such as formulating robust plans for development, marketing and fundraising; signing necessary contracts; obtaining approval from authorities; and securing sufficient human resources.

Health, safety and environment (HSE)
An acronym for Health, Safety and Environment that refers to occupational safety, health, and the environment.

Health, safety, security and environment (HSSE)
HSE with the addition of security, refers to occupational health, safety, security and the environment.

Japan crude cocktail (JCC)
The average price of crude oil imported by Japan and determined in reference to cost, insurance and freight (CIF).

Japan Electric Power Exchange (JEPX)
Japan Electric Power Exchange mediates spot trades and forward swaps of electric power.

LNG bunkering
Supplying LNG fuel to vessels.

Production sharing contract (PSC)
A contract between the government of a host country and one or more investors regarding the exploration, development and production of oil by the investors under license and management by the host country. Under the PSC, the government and investors share oil production in accordance with set rates after the investors have recovered their costs and expenses from oil marketing revenues.

Reserve replacement ratio (RRR)
RRR is the ratio of growth in volume of proved reserves against production volume in a single fiscal year or other specific period of time. As a numerical indicator for measuring business performance in terms of oil and gas exploration and development, RRR is calculated by dividing growth in the volume of proved reserves by the production volume.

Steam assisted gravity drainage (SAGD)
A modern technology that employs a pair of horizontal wells, one set five meters above the other, drilled into an oil sands layer located around 300 meters below the ground surface, with their horizontal lengths ranging from 500 to 1,000 meters. A continuous injection of steam into the oil sands layer via the upper well (the injection well) heats the bitumen and increases its fluidity, enabling it to flow down into the lower well (the bitumen production well) assisted by gravity. Bitumen is thus recovered to the above-ground production facilities.

Financial Data

Management's Discussion and Analysis

Overview of Operating Results

Operating Results

During the fiscal year ended March 31, 2021 (FY2021/3), net sales was ¥240,078 million, a decrease of ¥78,744 million (-24.7%) year on year. Gross profit was ¥36,534 million, a decrease of ¥10,507 million (-22.3%) year on year. Major factors behind the year-on-year decreases for net sales and gross profit were decreases in the sales volume and sales price of crude oil from the Garraf Oil Field in the southern part of the Republic of Iraq, decreases in the sales volume and sales price of crude oil and natural gas in Japan, a decline in diluted bitumen sales, and other negative factors overwhelming the positive factors such as the sales of electricity due to the commencement of commercial operations at the Fukushima Natural Gas Power Plant.

Exploration expenses was ¥989 million, an increase of ¥95 million (+10.7%) year on year. Selling, general and administrative expenses was ¥31,352 million, a decrease of ¥512 million (-1.6%) year on year. As a result, operating profit was ¥4,192 million, a decrease of ¥10,091 million (-70.6%) year on year. Ordinary profit was ¥10,001 million, a decrease of ¥22,633 million (-69.4%) year on year, due mainly to a decrease in share of profit of entities accounted for using equity method, the turnaround from foreign exchange gains to foreign exchange losses, and a decrease in dividend income. Profit before income taxes deteriorated by ¥39,226 million year on year to a loss before income taxes of ¥7,322 million (profit before income taxes of ¥31,903 million in the previous fiscal year) due to the recording of impairment losses within some domestic business assets under extraordinary losses.

Profit attributable to owners of parent deteriorated by ¥29,541 million year on year to a loss attributable to owners of parent of ¥2,725 million (profit attributable to owners of parent of ¥26,815 million in the previous fiscal year).

Financial Position

Total assets at the end of this fiscal year decreased by ¥2,345 million from the previous fiscal year-end to ¥624,786 million.

Current assets increased by ¥7,980 million from the previous fiscal year-end. This was mainly due to an increase in notes and accounts receivable—trade, despite a decrease in raw materials and supplies. Non-current assets decreased by ¥10,326 million from the previous fiscal year-end. This was mainly due to a decrease in property, plant and equipment resulting from the impairment losses and progress in the depreciation, despite an increase in investment securities resulting from the rise in market values.

Liabilities increased by ¥3,319 million from the previous fiscal year-end to ¥190,294 million. Current liabilities increased by ¥68,038 million from the previous fiscal year-end. This was mainly due to the reclassification of current portion of long-term borrowings from long-term borrowings in non-current liabilities and an increase in notes and accounts payable—trade. Non-current liabilities decreased by ¥64,718 million from the previous fiscal year-end. This was mainly due to a decrease resulting from the above-mentioned reclassification of borrowings with repayments due in one year or less to current liabilities, despite an increase in asset retirement obligations.

Net assets decreased by ¥5,665 million from the previous fiscal year-end to ¥434,492 million. The main factors were decreases in retained earnings and foreign currency translation adjustment, despite an increase in valuation difference on available-for-sale securities.

Cash Flows

As of March 31, 2021, cash and cash equivalents (hereinafter "net cash") increased by ¥19,703 million compared to the end of the previous fiscal year to ¥157,963 million. Below is a summary of cash flows for each activity.

Cash flows from operating activities

Net cash provided by operating activities amounted to ¥43,263 million. The main factors were recovery of recoverable accounts of ¥15,196 million and ¥22,599 million in depreciation.

Cash flows from investing activities

Net cash used in investing activities amounted to ¥6,453 million. Net cash was mainly used in payments of recoverable accounts of ¥14,971 million and purchase of property, plant and equipment of ¥15,153 million, while net cash was mainly provided by interest and dividends received of ¥10,358 million.

Cash flows from financing activities

Net cash used in financing activities was ¥15,626 million. Net cash was mainly used in repayments of long-term borrowings of ¥6,470 million, interest paid of ¥2,908 million and dividends paid of ¥2,858 million.

Dividend Policy

JAPEX has the basic policy on profit distribution to maintain long-term and stable dividends for shareholders. As a company with the role of providing a stable supply of oil and natural gas essential for society to function, the specific dividend amount is set after giving comprehensive consideration to investments aimed at securing new, proved reserves worldwide and retaining earnings to fund development and expansion of our supply infrastructure in light of the medium- to long-term outlook for the business environment. In addition to the above, we need to consider the level of earnings for each fiscal year and any future funding needs.

Our basic policy is to pay dividends on surplus twice a year, in the form of interim and year-end dividends. The interim dividend is determined by resolution of the Board of Directors, whereas the year-end dividend is determined by resolution of the General Meeting of Shareholders.

Based on this policy, we decided to issue an annual dividend for FY2021/3 of ¥50 per share, split equally between the interim dividend and the year-end dividend.

In accordance with the stipulations of Paragraph 5, Article 454 of the Companies Act of Japan, JAPEX's Articles of Incorporation permit the interim dividend to be determined by resolution of the Board of Directors, with September 30 as the date of record.

Main Businesses/Business Risks

As of March 31, 2021, the JAPEX Group comprises JAPEX, 23 subsidiaries and 20 affiliates.

In the consolidated fiscal year ended March 31, 2021 (FY2021/3), with the start of operations at the Fukushima Natural Gas Power Plant, the Electric Power Business fully commenced. Following this, to draw a clearer distinction between our E&P and non-E&P businesses, we changed our main business categories into E&P Business, Infrastructure/Utility Business, and other business.

Business Segment	Main Businesses
Japan	(1) E&P Business JAPEX and its consolidated subsidiary Japex Offshore Ltd. produce crude oil and natural gas in Japan. In addition, the consolidated subsidiary North Japan Oil Co., Ltd. buys and sells JAPEX's crude oil.
	(2) Infrastructure/Utility Business In addition to the domestic natural gas produced by the Group, JAPEX produces regasified LNG from imported LNG at the Soma LNG Terminal and Nihonkai LNG Co., Ltd.'s Niigata LNG Terminal. These two types of gas are sold to customers in regions along the Company's owned gas pipeline network spanning over 800 km in length. The consolidated subsidiary Shirone Gas Co., Ltd. and the affiliate TOHOKU NATURAL GAS CO., Inc. sell gas received from the Company's wholesale supply. The consolidated subsidiary Akita Natural Gas Pipeline Co., Ltd. transports the natural gas the Company sells in Akita Prefecture. In Hokkaido, JAPEX receives raw materials from coastal vessels at the Yufutsu LNG Receiving Terminal and sells the regasified LNG and domestic natural gas to customers in the prefecture. In addition, JAPEX and some of its affiliates supply LNG from satellite terminals using tanker trucks and containers to meet demand for natural gas in the areas outside of its pipeline network. In addition, the Company provides contract supply services using its pipes to contract supply clients. The Company's affiliate Fukushima Gas Power Co., Ltd. (FGP) conducts power generation business at the Fukushima Natural Gas Power Plant, which neighbors the Soma LNG Terminal. JAPEX contracts FGP for power generation and sells this power mainly to other retail electric providers. In addition, JAPEX is contracted by FGP for regasification of the LNG used as fuel for the power plant. To stably provide the necessary raw material and fuel LNG to the Gas Business and Electric Power Business, JAPEX works hard to diversify its suppliers and contract terms.
	(3) Other business The consolidated subsidiary SK Engineering Co., Ltd. is contracted by JAPEX and other companies for well drilling and maintenance operations. The consolidated subsidiary Geophysical Surveying Co., Ltd. is contracted by JAPEX and other companies to conduct geophysical surveys and mud logging related to well drilling and maintenance operations. Mud logging refers to recording the results of surveys and analyses of mud that is circulated in wells during drilling and the excavated top layer of earth that is brought to the surface by the mud. The consolidated subsidiary JGI, Inc. is contracted by JAPEX and other companies to conduct geophysical exploration. The consolidated subsidiary Japex Energy Co., Ltd.'s main business is the sale of oil products. This subsidiary also sells LPG to JAPEX and oil products to JAPEX SKS Corporation and other companies.

Business Segment	Main Businesses
North America	E&P Business In many cases, the Company establishes companies for each project to ensure efficient operations when conducting exploration and development of crude oil and natural gas fields overseas. These companies are often joint ventures with other companies in an effort to distribute risks. In North America, consolidated subsidiaries at the production stage include Japex (U.S.) Corp., Japan Canada Oil Sands Limited (a subsidiary of Canada Oil Sands Co., Ltd.), and JAPEX Montney Ltd.
Europe	E&P Business The consolidated subsidiary JAPEX UK E&P Ltd. engages in development operations in the U.K. North Sea.
Middle East	E&P Business The consolidated subsidiary Japex Garraf Ltd. is engaged in production in the Garraf Oil Field in the Republic of Iraq.
Other	E&P Business We also have business segments in Southeast Asia (the affiliate Energi Mega Pratama Inc. for production) and Russia (the affiliate Sakhalin Oil and Gas Development Co., Ltd. for production).

For business risks, please see our website.

Consolidated Balance Sheet

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
As of March 31, 2021

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	2021
ASSETS			
Current assets:			
Cash and deposits (Notes 11 and 21)	¥162,368	¥160,077	$1,476,072
Notes and accounts receivable—trade (Note 11)	39,519	27,510	359,263
Securities (Notes 4, 11 and 21)	3,030	4,000	27,545
Merchandise and finished goods (Note 3)	4,297	5,223	39,063
Work in process (Note 3)	140	167	1,272
Raw materials and supplies (Note 3)	8,001	11,141	72,736
Other	3,715	4,966	33,772
Less—allowance for doubtful accounts	(38)	(31)	(345)
Total current assets	221,034	213,054	2,009,400
Non-current assets:			
Property, plant and equipment (Notes 5 and 17):			
Land	12,385	16,670	112,590
Buildings and structures	327,422	335,240	2,976,563
Wells	119,329	117,964	1,084,809
Machinery, equipment and vehicles	145,143	146,113	1,319,481
Construction in progress	34,537	31,466	313,972
Other	36,783	37,965	334,390
Less—accumulated depreciation	(408,856)	(391,383)	(3,716,872)
Total property, plant and equipment	266,745	294,038	2,424,954
Intangible assets:			
Other	6,129	6,823	55,718
Total intangible assets	6,129	6,823	55,718
Investments and other assets:			
Investment securities (Notes 4 and 11)	105,070	88,922	955,181
Long-term loans receivable (Note 11)	48	43	436
Deferred tax assets (Note 7)	7,940	8,003	72,181
Retirement benefit asset (Note 8)	2,384	971	21,672
Other (Note 4)	15,850	16,034	144,090
Less—allowance for doubtful accounts	(44)	(44)	(400)
Less—allowance for overseas investment loss	(373)	(715)	(3,390)
Total investments and other assets	130,877	113,216	1,189,790
Total non-current assets	403,752	414,078	3,670,472
Total assets	¥624,786	¥627,132	$5,679,872

See notes to consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	2021
LIABILITIES AND NET ASSETS			
Current liabilities:			
Notes and accounts payable—trade (Note 11)	¥ 21,546	¥ 12,237	$ 195,872
Current portion of long-term borrowings (Notes 6 and 11)	62,175	6,833	565,227
Provision for loss on disaster (Note 18)	913	—	8,300
Other (Note 6)	19,142	16,667	174,018
Total current liabilities	103,776	35,738	943,418
Non-current liabilities:			
Long-term borrowings (Notes 6 and 11)	50,180	118,774	456,181
Deferred tax liabilities (Note 7)	7,919	9,878	71,990
Retirement benefit liability (Note 8)	3,545	3,528	32,227
Asset retirement obligations (Note 13)	21,262	15,432	193,290
Other (Note 6)	3,609	3,623	32,809
Total non-current liabilities	86,517	151,236	786,518
Total liabilities	190,294	186,975	1,729,945
Commitment and contingent liabilities (Notes 10, 12 and 14)			
Net assets (Note 9)**:**			
Shareholders' equity:			
Share capital:			
Authorized —120,000,000 shares			
Issued — 57,154,776 shares as of March 31, 2021 and 2020	14,288	14,288	129,890
Retained earnings	344,438	350,934	3,131,254
Treasury shares; 79,982 shares as of March 31, 2021 2,303 shares as of March 31, 2020	(151)	(11)	(1,372)
Total shareholders' equity	358,575	365,212	3,259,772
Accumulated other comprehensive income:			
Valuation difference on available-for-sale securities	44,228	33,061	402,072
Deferred gains or losses on hedges	(488)	181	(4,436)
Foreign currency translation adjustment	(3,810)	3,494	(34,636)
Remeasurements of defined benefit plans	1,667	756	15,154
Total accumulated other comprehensive income	41,596	37,494	378,145
Non-controlling interests	34,320	37,450	312,000
Total net assets	434,492	440,157	3,949,927
Total liabilities and net assets	¥624,786	¥627,132	$5,679,872

See notes to consolidated financial statements.

Consolidated Statement of Income

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
Year ended March 31, 2021

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	2021
Net sales	¥240,078	¥318,822	$2,182,527
Cost of sales (Note 3)	203,543	271,780	1,850,390
Gross profit	36,534	47,042	332,127
Exploration expenses	989	893	8,990
Selling, general and administrative expenses (Note 16)	31,352	31,864	285,018
Operating profit	4,192	14,283	38,109
Other income (expenses)**:**			
Interest income	412	1,096	3,745
Dividend income	2,823	5,618	25,663
Gain (loss) on sale of securities, net	—	239	—
Share of profit (loss) of entities accounted for using equity method	5,808	11,960	52,800
Gain (loss) on sale of non-current assets, net	5	(13)	45
Foreign exchange gains (losses)	(639)	2,425	(5,809)
Interest expenses	(2,529)	(4,641)	(22,990)
Loss on retirement of non-current assets	(30)	(193)	(272)
Impairment losses (Note 17)	(16,351)	(524)	(148,645)
Loss on disaster (Note 18)	(948)	—	(8,618)
Other, net	(66)	1,652	(600)
	(11,515)	17,619	(104,681)
Profit (loss) before income taxes	(7,322)	31,903	(66,563)
Income taxes (Note 7)**:**			
Income taxes—current	4,941	4,318	44,918
Income taxes—deferred	(6,864)	469	(62,400)
	(1,923)	4,788	(17,481)
Profit (loss)	(5,399)	27,114	(49,081)
Profit (loss) attributable to non-controlling interests	(2,673)	299	(24,300)
Profit (loss) attributable to owners of parent (Note 20)	¥ (2,725)	¥ 26,815	$ (24,772)

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
Year ended March 31, 2021

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	**2021**
Profit (loss)	**¥(5,399)**	¥27,114	**$(49,081)**
Other comprehensive income (Note 22)**:**			
Valuation difference on available-for-sale securities	**11,160**	(33,236)	**101,454**
Deferred gains or losses on hedges	**125**	184	**1,136**
Foreign currency translation adjustment	**(7,853)**	(34)	**(71,390)**
Remeasurements of defined benefit plans, net of tax	**910**	(357)	**8,272**
Share of other comprehensive income of entities accounted for using equity method	**(517)**	74	**(4,700)**
Total other comprehensive income	**3,825**	(33,369)	**34,772**
Comprehensive income	**(1,574)**	(6,254)	**(14,309)**
Comprehensive income attributable to:			
Owners of parent	**1,375**	(6,437)	**12,500**
Non-controlling interests	**¥(2,949)**	¥ 183	**$(26,809)**

See notes to consolidated financial statements.

Consolidated Statement of Changes in Equity

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
Year ended March 31, 2021

	Millions of yen											
	Shareholders' equity					Accumulated other comprehensive income						
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	Total net assets
Balance as of April 1, 2019	¥14,288	¥ 157	¥331,306	¥ (10)	¥345,741	¥66,296	¥(2)	¥3,338	¥1,114	¥70,747	¥33,668	¥450,156
Dividends of surplus			(3,143)		(3,143)							(3,143)
Profit attributable to owners of parent			26,815		26,815							26,815
Change in ownership interest of parent due to transactions with non-controlling interests		(4,192)			(4,192)							(4,192)
Change in scope of consolidation			(7)		(7)							(7)
Change in scope of equity method					—							—
Purchase of treasury shares				(0)	(0)							0
Transfer from retained earnings to capital surplus		4,035	(4,035)		—							—
Net changes in items other than shareholders' equity						(33,235)	184	156	(357)	(33,252)	3,782	(29,470)
Total changes during period	—	(157)	19,628	0	19,470	(33,235)	184	156	(357)	(33,252)	3,782	(9,999)
Balance as of April 1, 2020	**14,288**	**—**	**350,934**	**(11)**	**365,212**	**33,061**	**181**	**3,494**	**756**	**37,494**	**37,450**	**440,157**
Dividends of surplus			**(2,857)**		**(2,857)**							**(2,857)**
Loss attributable to owners of parent			**(2,725)**		**(2,725)**							**(2,725)**
Change in ownership interest of parent due to transactions with non-controlling interests					**—**							**—**
Change in scope of consolidation			**(0)**		**(0)**							**(0)**
Change in scope of equity method			**(911)**		**(911)**							**(911)**
Purchase of treasury shares				**(140)**	**(140)**							**(140)**
Transfer from retained earnings to capital surplus					**—**							**—**
Net changes in items other than shareholders' equity						**11,167**	**(670)**	**(7,305)**	**910**	**4,101**	**(3,130)**	**971**
Total changes during period	**—**	**—**	**(6,495)**	**(140)**	**(6,636)**	**11,167**	**(670)**	**(7,305)**	**910**	**4,101**	**(3,130)**	**(5,665)**
Balance as of March 31, 2021	**¥14,288**	**¥ —**	**¥344,438**	**¥(151)**	**¥358,575**	**¥44,228**	**¥(488)**	**¥(3,810)**	**¥1,667**	**¥41,596**	**¥34,320**	**¥434,492**

	Thousands of U.S. dollars (Note 1)											
	Shareholders' equity					Accumulated other comprehensive income						
	Share capital	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	Total net assets
Balance as of April 1, 2020	**$129,890**	**$—**	**$3,190,309**	**$ (100)**	**$3,320,109**	**$300,554**	**$ 1,645**	**$ 31,763**	**$ 6,872**	**$340,854**	**$340,454**	**$4,001,427**
Dividends of surplus			**(25,972)**		**(25,972)**							**(25,972)**
Loss attributable to owners of parent			**(24,772)**		**(24,772)**							**(24,772)**
Change in ownership interest of parent due to transactions with non-controlling interests					**—**							**—**
Change in scope of consolidation			**(0)**		**(0)**							**(0)**
Change in scope of equity method			**(8,281)**		**(8,281)**							**(8,281)**
Purchase of treasury shares				**(1,272)**	**(1,272)**							**(1,272)**
Transfer from retained earnings to capital surplus					**—**							**—**
Net changes in items other than shareholders' equity						**101,518**	**(6,090)**	**(66,409)**	**8,272**	**37,281**	**(28,454)**	**8,827**
Total changes during period	**—**	**—**	**(59,045)**	**(1,272)**	**(60,327)**	**101,518**	**(6,090)**	**(66,409)**	**8,272**	**37,281**	**(28,454)**	**(51,500)**
Balance as of March 31, 2021	**$129,890**	**$—**	**$3,131,254**	**$(1,372)**	**$3,259,772**	**$402,072**	**$(4,436)**	**$(34,636)**	**$15,154**	**$378,145**	**$312,000**	**$3,949,927**

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
Year ended March 31, 2021

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	2021
Cash flows from operating activities:			
Profit (loss) before income taxes	¥ (7,322)	¥ 31,903	¥ (66,563)
Depreciation	22,599	25,190	205,445
Impairment losses	16,351	524	148,645
Loss on retirement of property, plant and equipment	30	136	272
Loss (gain) on valuation of short-term and long-term investment securities	12	—	109
Increase (decrease) in allowance for doubtful accounts	6	(4)	54
Decrease (increase) in retirement benefit asset	(1,413)	347	(12,845)
Increase (decrease) in retirement benefit liability	16	75	145
Increase (decrease) in allowance for overseas investment loss	(342)	(342)	(3,109)
Interest and dividend income	(3,235)	(6,714)	(29,409)
Interest expenses	2,529	4,641	22,990
Foreign exchange losses (gains)	(7)	(2,986)	(63)
Loss (gain) on sale of short-term and long-term investment securities	—	(239)	—
Share of loss (profit) of entities accounted for using equity method	(5,808)	(11,960)	(52,800)
Recovery of recoverable accounts	15,196	41,040	138,145
Decrease (increase) in trade receivables	(12,188)	(6,695)	(110,800)
Decrease (increase) in inventories	4,003	(4,029)	36,390
Increase (decrease) in trade payables	10,211	3,831	92,827
Increase (decrease) in accrued consumption taxes	2,219	(668)	20,172
Other, net	3,490	(2,138)	31,727
Subtotal	46,348	71,914	421,345
Income taxes refund (paid)	(3,085)	(2,018)	(28,045)
Net cash provided by (used in) operating activities	43,263	69,895	393,300

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2021	2020	2021
Cash flows from investing activities:			
Payments into time deposits	(28,281)	(77,870)	(257,100)
Proceeds from withdrawal of time deposits	46,446	70,869	422,236
Purchase of property, plant and equipment	(15,153)	(7,566)	(137,754)
Proceeds from sale of property, plant and equipment	21	11	190
Purchase of intangible assets	(416)	(111)	(3,781)
Payments for asset retirement obligations	(114)	(78)	(1,036)
Purchase of investment securities	(6,806)	(373)	(61,872)
Proceeds from sale and redemption of investment securities	—	1,024	—
Payments of recoverable accounts	(14,971)	(30,226)	(136,100)
Loan advances	(26)	(26)	(236)
Proceeds from collection of loans receivable	22	4,484	200
Interest and dividends received	10,358	18,820	94,163
Proceeds from dividends of residual property	—	5	—
Proceeds from capital reduction of investments	3,068	2,138	27,890
Other, net	(598)	196	(5,436)
Net cash provided by (used in) investing activities	(6,453)	(18,701)	(58,663)
Cash flows from financing activities:			
Proceeds from short-term borrowings	75,079	49,918	682,536
Repayments of short-term borrowings	(77,813)	(48,615)	(707,390)
Repayments of long-term borrowings	(6,470)	(6,307)	(58,818)
Purchase of treasury shares	(140)	(0)	(1,272)
Dividends paid	(2,858)	(3,141)	(25,981)
Dividends paid to non-controlling interests	(180)	(516)	(1,636)
Interest paid	(2,908)	(4,729)	(26,436)
Repayments of lease obligations	(335)	(357)	(3,045)
Proceeds from share issuance to non-controlling shareholders	—	4	—
Net cash provided by (used in) financing activities	(15,626)	(13,743)	(142,054)
Effect of exchange rate change on cash and cash equivalents	(1,479)	175	(13,445)
Net increase (decrease) in cash and cash equivalents	19,703	37,625	179,118
Cash and cash equivalents at beginning of period	138,259	100,633	1,256,900
Cash and cash equivalents at end of period (Note 21)	¥157,963	¥138,259	¥1,436,027

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Japan Petroleum Exploration Co., Ltd. and Consolidated Subsidiaries
Year ended March 31, 2021

1. Basis of Presenting Consolidated Financial Statements

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

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

The consolidated financial statements are stated in Japanese yen, the currency of the country in which the Company is incorporated and operates.

As permitted by the regulations under the Financial Instruments and Exchange Act of Japan, amounts of less than one million yen have been rounded down. As a result, the totals shown in the accompanying consolidated financial statements in yen do not necessarily agree with the sums of the individual amounts.

The U.S. dollar amounts shown in the accompanying consolidated financial statements and notes thereto were translated from the presented Japanese yen amounts into U.S. dollar amounts at the rate of ¥110 = U.S. $1, the approximate rate of exchange at March 31, 2021, and were then rounded down to the nearest thousand. As a result, the totals shown in the accompanying consolidated financial statements in U.S. dollar do not necessarily agree with the sums of the individual amounts. This translation of Japanese yen amounts into U.S. dollar amounts is included solely for convenience of readers outside Japan. Such translation should not be construed as a representation that Japanese yen could be converted into U.S. dollars at that or any other rate.

2. Significant Accounting Policies

(1) Principles of consolidation and accounting for investments in unconsolidated subsidiaries and affiliates

The consolidated financial statements as of and for the year ended March 31, 2021 include the accounts of the Company and its 18 (19 in 2020) significant subsidiaries.

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

For the year ended March 31, 2021, 12 (11 in 2020) affiliates are accounted for using the equity method.

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

The difference between the cost and the underlying net equity at fair value of investments in entities accounted for using the equity method is amortized by the straight-line method over a period not exceeding 20 years, except for minor accounts that are charged to income in the period of acquisition.

The accounts of certain consolidated subsidiaries with a fiscal year-end of December 31 are consolidated on the basis of their fiscal year-end. The necessary adjustments have been made to the consolidated financial statements for any significant transactions that took place between the day following their balance sheet date and the consolidated balance sheet date.

Entities accounted for using the equity method whose fiscal year-ends are different than that of the Company are accounted for on the basis of the entities' respective fiscal year-end.

(2) Foreign currency translation

Monetary assets and liabilities denominated in foreign currencies are translated into yen at the exchange rates prevailing at the consolidated balance sheet date. The resulting exchange gains or losses are presented as foreign exchange gains or losses. The revenue and expense accounts as well as balance sheet accounts of the foreign consolidated subsidiaries are translated into yen at the exchange rates prevailing at their balance sheet dates. Differences arising from the translation are included in foreign currency translation adjustment under net assets.

(3) Cash and cash equivalents

In preparing the consolidated statements of cash flows, the Company considers cash on hand, readily available deposits and highly liquid short-term investments with maturities of three months or less when purchased that are exposed to an insignificant risk of changes in value to be cash and cash equivalents.

(4) Securities and investment securities

In general, securities are classified into three categories: trading, held-to-maturity or available-for-sale securities. Held-to-maturity securities are stated at amortized cost. Available-for-sale securities with a determinable market value are stated at fair value based on market value at the balance sheet date, and unrealized gains and losses, net of applicable income taxes, are reported as a separate component of net assets. Cost of securities sold is computed based on the moving average method. Available-for-sale securities without a determinable market value are stated at the moving average cost.

(5) Inventories

Merchandise and finished goods are mainly stated at the lower of cost, determined by the first-in, first-out method, or net realizable value. Raw materials and supplies are mainly stated at the lower of cost, determined by the moving average method, or net realizable value.

(6) Property, plant and equipment (excluding leased assets)

Buildings (excluding attached facilities) acquired on or after April 1, 1998 and facilities attached to buildings and structures of certain domestic consolidated subsidiaries acquired on or after April 1, 2016 as well as the Sendai pipelines, the Shiroishi-Koriyama gas pipelines, Soma-Iwanuma gas pipelines, assets of the Hokkaido District Office and Soma District Office of the Company and property, plant and equipment held by three domestic consolidated subsidiaries are depreciated by the straight-line method.

Property, plant and equipment held by three foreign consolidated subsidiaries (3 in 2020) are depreciated by the unit of production method.

Other property, plant and equipment (excluding leased assets) are depreciated by the declining-balance method. The useful lives of property, plant and equipment are summarized as follows:

Buildings and structures	2 to 60 years
Wells	3 years
Machinery, equipment and vehicles	2 to 22 years

Notes to Consolidated Financial Statements

(7) Intangible assets (excluding leased assets)

Intangible assets are amortized by the straight-line method.

Capitalized computer software costs are amortized by the straight-line method over a period of five years, and those of one foreign consolidated subsidiary (1 in 2020) are mainly amortized by the unit of production method.

(8) Leased assets

For finance leases which do not transfer ownership of the leased assets to the lessee, leased assets are amortized by the straight-line method over the lease terms with no residual value.

(9) Impairment on non-current assets

The Group reviews its non-current assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable.

The impairment losses are measured as the amount by which the carrying amount of the asset or asset group exceeds its net realizable value, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling value at balance sheet date.

(10) Allowance for doubtful accounts

The allowance for doubtful accounts is stated at the amount determined based on the historical experience of bad debt with respect to ordinary receivables, plus an estimate of uncollectible amounts determined by reference to specific doubtful receivables from customers which are experiencing financial difficulties.

(11) Allowance for overseas investment loss

The allowance for overseas investment loss is stated at the amount determined based on the investees' financial position and certain other factors for possible losses arising from investments in the exploration and development of overseas natural resources.

(12) Provision for loss on disaster

The provision for loss on disaster is stated at the estimated amount of payment for restoration expenses accompanying earthquake off the coast of Fukushima Prefecture.

(13) Asset retirement obligations

Asset retirement obligations recognized by the Group are determined based on the estimated costs of decommissioning oil and natural gas wells and production facilities in accordance with laws, land lease contracts, etc. for wells and production facilities in Japan and overseas, and the appropriate discount rates.

(14) Retirement benefits

(a) Method of attributing expected benefit to periods

The retirement benefit obligations for employees are attributed to each period by the benefit formula method over the estimated years of service of the eligible employees.

(b) Accounting treatment of actuarial gains and losses and prior service costs

Prior service costs are amortized by the straight-line method over a certain period (10 years), which is shorter than the average remaining years of service of the employees.

Actuarial gains and losses are amortized in the following year in which the gains or losses are recognized by the straight-line method over a certain period (10 years), which is shorter than the average remaining years of service of the employees.

(c) Application of simplified method for smaller enterprises

Certain consolidated subsidiaries apply the simplified method for calculating retirement benefit expenses and liabilities based on the assumption that the benefit payable, which are calculated as if all eligible employees voluntarily terminated their employment at fiscal year-end, approximates the retirement benefit obligation at year's end.

(15) Hedge accounting

Deferral hedge accounting is adopted for hedge transactions. Foreign exchange forward contracts are accounted for by the allocation method if the foreign exchange forward contracts meet certain criteria to adopt the method.

The following summarizes hedging derivative instruments used by the Group and items hedged:

Hedging instruments: Foreign exchange forward contracts and crude oil swaps

Hedged items: Accounts receivable—trade, accounts payable—trade and accounts payable—other

In addition, the nominal amount of the derivative transaction is limited to within the scope of actual demand, and the Group does not engage in speculative derivative transactions.

(16) Recognition of revenue and costs of construction contracts

The Group applies the percentage-of-completion method (the cost-comparison method is used to estimate the progress of the construction activity) for construction contracts, if the outcome of the construction activity is deemed certain at the end of the fiscal year. For contracts where the outcome of activity is uncertain, the completed-contract method is applied.

(17) Research and development expenses

Research and development expenses are charged to income when incurred.

(18) Accounting treatment of recoverable accounts

Investments made under a development and production service contract are included in recoverable accounts. These investments are recovered through sales to customers of a portion of the crude oil production received based on the contract.

In addition, an amount corresponding to the recovered investments at the time of sale is recorded as cost of sales.

(19) Income taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the carrying amounts of assets and liabilities for accounting purposes and the amounts for income tax purposes. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applied to taxable income in the years in which the temporary differences are expected to be settled or realized. The effect of deferred tax assets and liabilities due to change in tax rate is recognized in the consolidated statement of income for the period including the enacted date.

Notes to Consolidated Financial Statements

(20) Significant accounting estimates

(a) Evaluation of non-current assets (JAPEX Montney Ltd. and Japan Canada Oil Sands Limited)

(i) Amounts recorded in the consolidated financial statements for the year ended March 31, 2021

	Millions of yen	Thousands of U.S. dollars
	2021	2021
Property, plant and equipment	¥175,541	$1,595,827

(ii) Information about significant accounting estimates for identified items

1) Calculation method

Of the Company's consolidated subsidiaries that have identified an indicator of impairment in the year ended March 31, 2021, JAPEX Montney Ltd. ("JML"), which applies IFRS, did not recognize any impairment losses for the year ended March 31, 2021 because the recoverable amount (value in use) exceeded the carrying amount of the asset group.

Similarly, of the Company's consolidated subsidiaries that have identified an indicator of impairment in the year ended March 31, 2021, Japan Canada Oil Sands Limited, which applies U.S. GAAP, did not recognize any impairment losses for the year ended March 31, 2021 because its undiscounted future cash flows exceeded the carrying amount of the asset group.

2) Major assumptions used for significant accounting estimates

The amount is calculated using the estimated future cash flows based on the business plans approved by management. The estimated future cash flows include various factors such as reserves, crude oil and natural gas prices, discount rates and development plans.

Reserves are the sum of proved and probable reserves, and crude oil and natural gas prices are determined based on observable market prices and management's estimates.

3) Effects on the consolidated financial statements for the year ending March 31, 2022

Estimates of reserves, crude oil and natural gas prices and other items, which are cited as major assumptions, are uncertain. If future cash flows are estimated to decrease further due to a decline in crude oil and natural gas prices or a decrease in sales volume caused by a significant change in business plans or market conditions in the relevant regions, impairment losses may be recognized on non-current assets.

Although it was assumed that there would be an impact in the case of JML based on the aforementioned estimates, the Company resolved at the Board of Directors meeting held on May 13, 2021 to transfer the interests held by JML and concluded a sales and purchase agreement. For details, please refer to Note 24. Subsequent Events.

(b) Recoverability of deferred tax assets

(i) Amounts recorded in the consolidated financial statements for the year ended March 31, 2021

	Millions of yen	Thousands of U.S. dollars
	2021	2021
Deferred tax assets	¥29,017	$263,790

Note: The amount is before offset with deferred tax liabilities.

(ii) Information about significant accounting estimates on identified items

1) Calculation method

The Company reviews the recoverability of deferred tax assets in accordance with the "Implementation Guidance on Recoverability of Deferred Tax Assets" (Accounting Standards Board of Japan ("ASBJ") Guidance No. 26).

As of March 31, 2021, deductible temporary differences which are deemed collectible are recognized as deferred tax assets as a result of the scheduling of temporary differences based on the estimated amount of taxable income before adding or subtracting temporary differences for a reasonable estimable period in the future as of the end of the year ended March 31, 2021.

In addition, consolidated subsidiaries recognize deferred tax assets in accordance with respective accounting standards they apply.

2) Major assumptions used for significant accounting estimates

The recoverability of deferred tax assets is largely dependent on estimates of future taxable income. The Company and its consolidated subsidiaries estimate the timing and amount of future taxable income in accordance with the tax laws of the respective countries. The assumptions underlying these estimates, such as the selling price of each product, sales volume and foreign exchange rates, are incorporated into the business plans approved by management.

As of the end of the year ended March 31, 2021, the COVID-19 infection, which is one of the factors affecting the above assumptions, is not expected to be brought under control, and economic activities in Japan and overseas remain stagnant. The Company believes that the prolonged effects of the COVID-19 pandemic and global decarbonization may result in irreversible structural changes in various areas, including energy demand and environmental issues, and that there is a possibility that demand for fossil fuels will remain stagnant for a considerable period of time. In addition, the global economic recovery from the COVID-19 crisis will be aimed at green recovery, and the trend toward decarbonization may further accelerate. In light of these changes in the business environment surrounding the Company and the upward trend in global carbon prices, we have lowered our medium to long-term crude oil price forecast from USD 60 per barrel to USD 50 per barrel.

Taking into consideration the impact of such business conditions on the future business environment, the Company has calculated the amount of deferred tax assets to the extent that it is probable that taxable income will be available against which the deductible temporary differences and unused tax credit carried forward can be utilized.

3) Effects on the consolidated financial statements for the year ending March 31, 2022

Changes in estimates due to changes in the above assumptions may affect taxable income and increase or decrease the amount of deferred tax assets recorded for the Company and its consolidated subsidiaries. In particular, there is a possibility that significant tax losses will be incurred in the event of bad debt losses on the Company's loans and indemnification rights due to fulfillment of guarantees. As a result, the amount of deferred tax assets may increase or decrease as a result of reexamining the reasonable estimable period in the future in order to examine the recoverability using taxable income based on future profitability and tax planning estimates for deductible temporary differences.

(21) Accounting standards issued but not yet effective

- "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, revised on March 31, 2020)
- "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No. 30, revised on March 26, 2021)
- "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" (ASBJ Guidance No. 19, revised on March 31, 2020)

Notes to Consolidated Financial Statements

(a) Overview
International Accounting Standards Board ("IASB") and Financial Accounting Standards Board of the United States of America ("FASB") jointly developed a comprehensive accounting standard for revenue recognition and issued "Revenue from Contracts with Customers" (IFRS No. 15 issued by IASB and Topic 606 issued by FASB) in May 2014. Considering the situation that IFRS No. 15 has become applicable from the fiscal year beginning on and after January 1, 2018 and Topic 606 from the fiscal year beginning after December 15, 2017, ASBJ developed a comprehensive accounting standard for revenue recognition and issued it together with implementation guidance.

ASBJ's basic policy in developing the accounting standard for revenue recognition was to establish accounting standards as a starting point to adopt basic principles of IFRS No. 15 from the viewpoint of comparability of financial statements which is one of benefits of maintaining consistency with IFRS No. 15, and to add alternative treatments to the extent not to impair comparability in case where previous practice and others in Japan should be considered.

(b) Date of application
The "Accounting Standard for Revenue Recognition," etc. are applied effective from the beginning of the year ending March 31, 2022.

(c) Effect of application
The effect of applying the "Accounting Standard for Revenue Recognition," etc. on the consolidated financial statements will occur as a result of changing from presenting gross amounts to presenting net amounts for a portion of purchases and sales of crude oil and natural gas recorded by offsetting net sales and cost of sales. On the other hand, there is no impact on retained earnings at the beginning of the period.

- "Accounting Standard for Fair Value Measurement" (ASBJ Statement No. 30, issued on July 4, 2019)
- "Accounting Standard for Measurement of Inventories" (ASBJ Statement No. 9, revised on July 4, 2019)
- "Accounting Standard for Financial Instruments" (ASBJ Statement No. 10, revised on July 4, 2019)
- "Implementation Guidance on Accounting Standard for Fair Value Measurement" (ASBJ Guidance No. 31, issued on July 4, 2019)
- "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" (ASBJ Guidance No. 19, revised on March 31, 2020)

(a) Overview
The ASBJ promoted an initiative to enhance comparability of the requirements between the Japanese accounting standards and international accounting standards, primarily in the areas of guidance on the fair values of financial instruments and their disclosures, and issued "Accounting Standard for Fair Value Measurement," etc., considering the circumstance where the IASB and the FASB have prescribed almost the similar detailed guidance (IFRS 13 "Fair Value Measurement" issued by IASB and Accounting Standards Codification Topic 820 "Fair Value Measurement" issued by FASB).

The ASBJ's fundamental policies adopted for developing the "Accounting Standard for Fair Value Measurement," etc. are, in principle, to implement all the requirements of IFRS 13 from the viewpoint of enhancing the comparability of the financial statements of domestic and overseas companies by prescribing unified measurement methods, and also to prescribe exceptional treatments for individual matters so that comparability would not be impaired while the accounting practices that have conventionally been adopted in Japan are taken into account.

(b) Date of application
The "Accounting Standard for Fair Value Measurement," etc. are applied effective from the beginning of the year ending March 31, 2022.

(c) Effect of application
The effect of applying the "Accounting Standard for Fair Value Measurement," etc. on the consolidated financial statements is currently undetermined.

(22) Change in presentation
Application of Accounting Standard for Disclosure of Accounting Estimates
The Company has adopted the "Accounting Standard for Disclosure of Accounting Estimates" (ASBJ Statement No. 31, issued on March 31, 2020) to the consolidated financial statements for the year ended March 31, 2021, and notes on significant accounting estimates are included in the consolidated financial statements.

However, the contents related to the year ended March 31, 2020 are not described in this note in accordance with the transitional treatment prescribed in the provision of paragraph 11 of the accounting standard.

(23) Additional information
(a) Financial covenants
A part of loans from financial institutions of JAPEX Montney Ltd. ("JML"), a consolidated subsidiary of the Company, amounting to ¥28,048 million ($254,981 thousand) includes certain financial covenants clauses. JML has been breaching the financial covenants clauses as it has been in a state of insolvency. Regarding the resulting acceleration, because the moratorium on the exercise of rights by the financial institutions ends on March 31, 2021, the Company's Board of Directors passed a resolution on March 10, 2021, regarding the Company's payment of guarantee obligations for a portion of JML's borrowings from the financial institutions.

Furthermore, the said payment of guarantee obligations was carried out on April 1, 2021.

(b) Introduction of Board Benefits Trust ("BBT")
The Company, based on the resolution of the 50th Annual General Meeting of Shareholders held on June 26, 2020, has newly introduced a Performance-Linked Share-Based Remuneration Plan (Board Benefit Trust (BBT)) (hereinafter "the Plan") for the directors (excluding outside directors) and executive officers who are not directors (hereinafter collectively "directors, etc."). By clarifying links between directors' remunerations and the Company's operating results and share value, the Company aims to enhance directors' awareness of improving medium- to long-term operating results and contributing to enhance corporate value.

(i) Overview of the transaction
Under the Plan, in accordance with the rules on share distribution to officers established by the Company, the Company's shares and cash equivalents of such shares at their market value (hereinafter "the Company's shares, etc.") are granted to the directors, etc. through the trust established pursuant to the Plan. The directors, etc. will receive the Company's shares, etc., in principle, upon their retirement.

(ii) The Company's shares remaining in the Trust
The Company's shares remaining in the Trust are recorded as "Treasury shares" under net assets at the carrying amount in the Trust (except for incidental costs). As of March 31, 2021, the carrying amount and the number of shares of the treasury shares were ¥140 million ($1,272 thousand) and 77 thousand shares, respectively.

Notes to Consolidated Financial Statements

(c) Application of the "Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections"

The Company has applied the "Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections" (ASBJ Statement No. 24, revised on March 31, 2020) to its consolidated financial statements for the year ended March 31, 2021, and has newly disclosed the accounting principles and procedures adopted when requirements under the relating accounting standards are not clearly defined.

3. Inventories

The book value was reduced due to a decline in profitability, which is included in cost of sales for the years ended March 31, 2021 and 2020, in the amount of ¥371 million ($3,372 thousand) and ¥566 million, respectively.

4. Securities and Investment Securities

(1) Held-to-maturity securities

Information of unlisted corporate bonds (consolidated balance sheet amount: ¥4,510 million ($41,000 thousand)) as of March 31, 2021 is not stated because it is deemed to be extremely difficult to determine the fair value as the timing of redemption is undecided. As of March 31, 2020, there were no held-to-maturity securities.

(2) Information of available-for-sale securities as of March 31, 2021 and 2020 is as follows:

	Millions of yen			Thousands of U.S. dollars		
March 31, 2021	Carrying value	Acquisition cost	Unrealized gain (loss)	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost:						
Equity securities	¥84,214	¥23,225	¥60,989	$765,581	$211,136	$554,445
Debt securities:						
Corporate bonds	60	60	0	545	545	0
Other debt securities	—	—	—	—	—	—
Other	—	—	—	—	—	—
Subtotal	84,274	23,285	60,989	766,127	211,681	554,445
Securities whose carrying value does not exceed their acquisition cost:						
Equity securities	6	6	—	54	54	—
Debt securities:						
Corporate bonds	—	—	—	—	—	—
Other debt securities	—	—	—	—	—	—
Other	3,000	3,000	—	27,272	27,272	—
Subtotal	3,006	3,006	—	27,327	27,327	—
Total	¥87,281	¥26,292	¥60,989	$793,463	$239,018	$554,445

	Millions of yen		
March 31, 2020	Carrying value	Acquisition cost	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition cost:			
Equity securities	¥68,709	¥23,220	¥45,489
Debt securities:			
Corporate bonds	—	—	—
Other debt securities	—	—	—
Other	—	—	—
Subtotal	68,709	23,220	45,489
Securities whose carrying value does not exceed their acquisition cost:			
Equity securities	11	11	(0)
Debt securities:			
Corporate bonds	59	60	(0)
Other debt securities	—	—	—
Other	4,000	4,000	—
Subtotal	4,071	4,071	(0)
Total	¥72,781	¥27,292	¥45,488

Unlisted equity securities, carrying values of which as of March 31, 2021 and 2020 were ¥2,438 million ($22,163 thousand) and ¥2,023 million, respectively, are not included in the above tables as no quoted market prices were available and it was extremely difficult to determine the fair value.

(3) Information on sales of securities classified as available-for-sale for the years ended March 31, 2021 and 2020 is as follows:

There were no sales of securities classified as available-for-sale for the year ended March 31, 2021.

	Millions of yen		
March 31, 2020	Sales amount	Aggregate gain	Aggregate loss
Available-for-sale securities:			
Equity securities	¥1,024	¥240	¥1
Debt securities:			
Corporate bonds	—	—	—
Other debt securities	—	—	—
Other	—	—	—
Total	¥1,024	¥240	¥1

Notes to Consolidated Financial Statements

(4) During the year ended March 31, 2021, the Group recorded losses on valuation of securities in the amount of ¥12 million ($109 thousand) (loss on valuation of available-for-sale securities whose fair value is extremely difficult to determine). During the year ended March 31, 2020, the Group recorded no loss on valuation of securities.

If the market value of the security declines by 50% or more from its acquisition cost as of the end of the fiscal year, the Group recognizes the difference between the market value and the acquisition cost as impairment losses. If the decline ranges between about 30% and 50%, the Group recognizes impairment losses for the necessary amount considering its recoverability.

(5) Investments in unconsolidated subsidiaries and affiliates were shares of ¥13,868 million ($126,072 thousand) and corporate bonds of ¥4,510 million ($41,000 thousand) at March 31, 2021 and shares of ¥18,117 million at March 31, 2020.

(6) As of March 31, 2021 and 2020, investment securities of ¥4,797 million ($43,609 thousand) and ¥624 million were pledged as collateral for loans payable of subsidiaries and affiliates.

In addition to the pledged assets as collateral above, investment securities of ¥2,190 million ($19,909 thousand), which have been reduced due to application of the equity method on the consolidated balance sheet, are pledged as collateral as of March 31, 2021. There was no reduction due to application of the equity method as of March 31, 2020.

5. Reduction Entry for Property, Plant and Equipment

The amount deducted from the acquisition costs of property, plant and equipment due to government subsidies received, etc. as of March 31, 2021 and 2020 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Buildings and structures	¥ 42	¥ 42	$ 381
Machinery, equipment and vehicles	4,851	4,841	44,100
Other	198	198	1,800

6. Long-term Borrowings and Lease Obligations

Long-term borrowings at March 31, 2021 and 2020 consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Loans from banks and others			
Unsecured	¥112,355	¥125,607	$1,021,409
	112,355	125,607	1,021,409
Less—current portion	(62,175)	(6,833)	(565,227)
	¥ 50,180	¥118,774	$ 456,181

As of March 31, 2021, the weighted-average interest rate for the long-term borrowings balance was 0.75%.

The aggregate annual maturities of long-term borrowings subsequent to March 31, 2021 are as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2022	¥ 62,175	$ 565,227
2023	6,470	58,818
2024	6,470	58,818
2025	6,460	58,727
2026	6,210	56,454
2027 and thereafter	24,840	225,818
Total	¥112,625	$1,023,863

The Company and certain consolidated subsidiaries have entered into overdraft agreements and loan commitment agreements amounting to ¥141,901 million ($1,290,009 thousand) with six banks and ¥143,419 million with six banks at March 31, 2021 and 2020, respectively, to facilitate efficient procurement of working capital. The borrowings outstanding under the overdraft agreements and loan commitment agreements as of March 31, 2021 and 2020 were ¥55,993 million ($509,027 thousand) and ¥62,558 million, respectively; therefore, the unused balance was ¥85,908 million ($780,981 thousand) and ¥80,860 million as of March 31, 2021 and 2020, respectively.

Lease obligations included in other in non-current liabilities at March 31, 2021 and 2020 consist of the following:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Lease obligations	¥1,977	¥2,209	$17,972
Less—current portion	(271)	(321)	(2,463)
	¥1,705	¥1,888	$15,500

The aggregate annual maturities of lease obligations subsequent to March 31, 2021 are as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2022	¥ 271	$ 2,463
2023	223	2,027
2024	199	1,809
2025	192	1,745
2026	183	1,663
2027 and thereafter	905	8,227
Total	¥1,977	$17,972

Notes to Consolidated Financial Statements

7. Income Taxes

Income taxes imposed on the Company and its domestic consolidated subsidiaries comprise corporation, inhabitants and enterprise taxes. The statutory tax rate applicable to the Company was approximately 28.0% for the years ended March 31, 2021 and 2020. Income taxes of four foreign consolidated subsidiaries (five in 2020) are based principally on the tax rates applicable in their countries of incorporation.

The effective tax rates reflected in the consolidated statements of income for the years ended March 31, 2021 and 2020 differ from the statutory tax rates for the following reasons:

	2021	2020
Statutory tax rates	–%	28.0%
Effect of:		
Unrecognized tax effect accounting on net tax loss carried forward of consolidated subsidiaries	–	3.1
Exploration expenses deducted for income tax purposes	–	(0.8)
Dividends income, etc. not taxable for income tax purposes	–	(5.1)
Expenses not deductible for income tax purposes	–	0.2
Consolidation adjustment for equity method	–	(5.7)
Change in valuation allowance	–	(7.6)
Tax rate difference with consolidated subsidiaries	–	(1.7)
Tax system differences for foreign consolidated subsidiaries	–	(0.3)
Consolidation adjustment	–	2.5
Other, net	–	2.4
Effective tax rates	–%	15.0%

Note: Reconciliation of the effective tax rates reflected in the consolidated statement of income and the statutory tax rates for the year ended March 31, 2021 is not disclosed because the Company recognized loss before income taxes.

The significant components of deferred tax assets and liabilities at March 31, 2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Deferred tax assets:			
Allowance for overseas investment loss	¥ 104	¥ 200	$ 945
Net tax loss carried forward (Note)	22,687	12,238	206,245
Retirement benefit liability	1,057	1,032	9,609
Depreciation	22,516	26,856	204,690
Payable for retirement benefits for directors and other officers	60	64	545
Asset retirement obligations	5,803	4,197	52,754
Impairment losses on non-current assets	2,156	907	19,600
Investment securities	13,390	1,318	121,727
Tax credit carried forward	3,909	6,139	35,536
Other	4,062	6,651	36,927
Subtotal	75,749	59,605	688,627
Valuation allowance for net tax loss carried forward (Note)	(12,743)	(5,846)	(115,845)
Valuation allowance for total of deductible temporary differences	(33,988)	(33,069)	(308,981)
Total valuation allowance	(46,732)	(38,916)	(424,836)
Total deferred tax assets	29,017	20,689	263,790
Deferred tax liabilities:			
Reserve for exploration	(5,830)	(5,398)	(53,000)
Valuation difference on available-for-sale securities	(16,770)	(12,431)	(152,454)
Reserve for advanced depreciation of non-current assets	(211)	(221)	(1,918)
Undistributed earnings of foreign subsidiaries and affiliates	(314)	(437)	(2,854)
Reserve for special depreciation	(28)	(56)	(254)
Retirement benefit asset	(686)	(272)	(6,236)
Depreciation of foreign subsidiaries, etc.	(3,812)	(2,550)	(34,654)
Other	(1,341)	(1,197)	(12,190)
Total deferred tax liabilities	(28,996)	(22,564)	(263,600)
Net deferred tax assets (liabilities)	¥ 20	¥ (1,875)	$ 181

(Note) Net tax loss carried forward and breakdown of deferred tax assets thereof by expiration dates

	Millions of yen				
March 31, 2021	Expire in one year or less	Expire after one year through five years	Expire after five years through ten years	Expire after ten years/No expiration date	Total (*2)
Net tax loss carried forward (*1)	¥49	¥451	¥1,016	¥21,171	¥22,687
Valuation allowance	(49)	(399)	(999)	(11,296)	(12,743)
Deferred tax assets	¥–	¥ 52	¥ 17	¥ 9,874	¥ 9,944

	Millions of yen				
March 31, 2020	Expire in one year or less	Expire after one year through five years	Expire after five years through ten years	Expire after ten years/No expiration date	Total (*2)
Net tax loss carried forward (*1)	¥51	¥311	¥796	¥11,078	¥12,238
Valuation allowance	(51)	(254)	(781)	(4,759)	(5,846)
Deferred tax assets	¥ –	¥ 57	¥ 15	¥ 6,318	¥ 6,391

Notes to Consolidated Financial Statements

March 31, 2021	Thousands of U.S. dollars Expire in one year or less	Expire after one year through five years	Expire after five years through ten years	Expire after ten years/No expiration date	Total (*2)
Net tax loss carried forward (*1)	$445	$4,100	$9,236	$192,463	$206,245
Valuation allowance	(445)	(3,627)	(9,081)	(102,690)	(115,845)
Deferred tax assets	$ —	$ 472	$ 154	$ 89,763	$ 90,400

(*1) Net tax loss carried forward is calculated using the statutory tax rate.

(*2) Deferred tax assets of ¥9,944 million ($90,400 thousand) and ¥6,391 million are recognized for net tax loss carried forward of ¥22,687 million ($206,245 thousand) and ¥12,238 million (calculated using statutory tax rate) for the years ended in March 31, 2021 and 2020, respectively. Valuation allowance has not been recognized for the net tax loss carried forward which is expected to be recoverable from the estimated taxable income in the future.

8. Retirement Benefit Plans

(1) Overview of retirement benefit plans

The Company and its domestic consolidated subsidiaries have defined benefit plans, i.e., defined benefit corporate pension plans and lump-sum payment plans. The plans cover substantially all employees, and the amounts to be paid are determined by their respective basic rates of pay at retirement, length of service, and termination reasons. Certain domestic consolidated subsidiaries participate in the Smaller Enterprise Retirement Allowance Mutual Aid System and calculate retirement benefit liability and retirement benefit expenses using the simplified method.

(2) Defined benefit plans

(a) The reconciliation between retirement benefit obligations at the beginning of period and the end of period (excluding plans applying the simplified method shown in (c)) is as follows:

	Millions of yen 2021	2020	Thousands of U.S. dollars 2021
Retirement benefit obligations at beginning of period	¥15,546	¥16,009	$141,327
Service costs	935	940	8,500
Interest costs	134	139	1,218
Actuarial gains and losses	68	(426)	618
Retirement benefits paid	(1,400)	(1,116)	(12,727)
Retirement benefit obligations at end of period	¥15,285	¥15,546	$138,954

(b) The reconciliation between plan assets at the beginning of period and the end of period (excluding plans applying the simplified method shown in (c)) is as follows:

	Millions of yen 2021	2020	Thousands of U.S. dollars 2021
Plan assets at beginning of period	¥14,035	¥14,861	$127,590
Expected return on plan assets	140	148	1,272
Actuarial gains and losses	1,570	(635)	14,272
Contributions from employer	457	473	4,154
Retirement benefits paid	(999)	(813)	(9,081)
Plan assets at end of period	¥15,204	¥14,035	$138,218

(c) The reconciliation between retirement benefit liabilities of plans applying the simplified method at the beginning of period and the end of period is as follows:

	Millions of yen 2021	2020	Thousands of U.S. dollars 2021
Retirement benefit liability at beginning of period	¥1,045	¥ 986	$9,500
Retirement benefit expenses	231	215	2,100
Retirement benefits paid	(118)	(72)	(1,072)
Contributions to plans	(79)	(83)	(718)
Retirement benefit liability at end of period	¥1,079	¥1,045	$9,809

(d) The reconciliation between retirement benefit obligations and plan assets at the end of period and retirement benefit liability and retirement benefit asset on the consolidated balance sheets is as follows:

	Millions of yen 2021	2020	Thousands of U.S. dollars 2021
Funded retirement benefit obligations	¥12,819	¥13,063	$116,536
Plan assets	(15,204)	(14,035)	(138,218)
	(2,384)	(971)	(21,672)
Unfunded retirement benefit obligations	3,545	3,528	32,227
Net retirement benefit liability (asset) on consolidated balance sheet	1,160	2,557	10,545
Retirement benefit liability	3,545	3,528	32,227
Retirement benefit asset	(2,384)	(971)	(21,672)
Net retirement benefit liability (asset) on consolidated balance sheet	¥ 1,160	¥2,557	$ 10,545

(e) The breakdown of retirement benefit expenses is as follows:

	Millions of yen 2021	2020	Thousands of U.S. dollars 2021
Service costs	¥935	¥940	$8,500
Interest costs	134	139	1,218
Expected return on plan assets	(140)	(148)	(1,272)
Amortization of actuarial gains and losses	(154)	(184)	(1,400)
Amortization of prior service costs	(82)	(103)	(745)
Retirement benefit expenses calculated by simplified method	231	215	2,100
Retirement benefit expenses on defined benefit plans	¥924	¥858	$8,400

Notes to Consolidated Financial Statements

(f) Remeasurements of defined benefit plans recorded under other comprehensive income
The breakdown of items recorded in remeasurements of defined benefit plans, before tax, recorded under other comprehensive income is as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Prior service costs	**¥ (82)**	¥(103)	**$ (745)**
Actuarial gains and losses	**1,346**	(393)	**12,236**
Total	**¥1,264**	¥(496)	**$11,490**

(g) Remeasurements of defined benefit plans recorded under accumulated other comprehensive income
The breakdown of items recorded in remeasurements of defined benefit plans, before tax effect, recorded under accumulated other comprehensive income is as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Unrecognized prior service costs	**¥ —**	¥ 82	**$ —**
Unrecognized actuarial gains and losses	**2,315**	968	**21,045**
Total	**¥2,315**	¥1,050	**$21,045**

(h) Plan assets
(i) Breakdown of plan assets
The percentage of various assets to total plan assets by main category is as follows:

	2021	2020
Debt securities	**55%**	56%
Equity securities	**35**	31
Cash and deposits	**2**	4
Other	**8**	9
Total	**100%**	100%

(ii) Determination of long-term expected rate of return
In order to determine the long-term expected rate of return on plan assets, the Group considers the current and expected allocation of plan assets and the current and expected long-term rate of return from various assets constituting plan assets.

(i) Actuarial assumptions
The main actuarial assumptions for the years ended March 31, 2021 and 2020 (weighted averages) are as follows:

	2021	2020
Discount rate	**0.9%**	0.9%
Long-term expected rate of return	**1.0%**	1.0%

9. Shareholders' Equity

The Companies Act of Japan provides that an amount equal to at least 10% of the amount to be disbursed as distributions be transferred to the capital reserve and the legal reserve, respectively, until the total of capital reserve and the legal reserve equals 25% of the share capital account.

Such distributions can be made at any time by resolution of the shareholders' meeting or the Board of Directors if certain conditions are met.

10. Leases

Operating leases

Future minimum lease payments under non-cancelable operating leases subsequent to March 31, 2021 are as follows:
(Lessee)

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2022	**¥100**	**$ 909**
2023 and thereafter	**62**	**563**
Total	**¥163**	**$1,481**

11. Financial Instruments

(1) Overview

(a) Policy for measures relating to financial instruments
The Group's policy is to obtain operating funds ensuring funding liquidity and controlling risks. The Group raises necessary funds mainly through funds on hand and bank loans. Domestic capital investment is financed by commercial banks, and overseas business investment is financed by Japan Bank for International Cooperation and other commercial banks. The Group does not enter into derivative transactions for trading or speculative purposes but uses them to hedge the undermentioned risks.

(b) Descriptions of financial instruments and related risk and risk management
Operating receivables such as notes and accounts receivable—trade are exposed to credit risk. The Group works to prevent bad debts by monitoring credit conditions, etc. of customers on a timely basis in accordance with internal credit management rules.

Securities and investment securities mainly consist of equity securities of partner companies, and for those exposed to market fluctuation risk, fair value evaluation is reported to the directors on a regular basis in accordance with the internal regulations. Investment securities mainly consist of equity securities of INPEX CORPORATION recorded at ¥80,811 million ($734,645 thousand) and ¥65,076 million as of March 31, 2021 and 2020, the proportions of which to investment securities are 76.9% and 73.2%, respectively.

Notes to Consolidated Financial Statements

Loans receivable are mainly loans to our subsidiaries and affiliates for their operating capital and are exposed to credit risk and foreign currency fluctuation risk. The Group manages the credit risk appropriately by monitoring the collection status of the loans receivable. The Group reduces the foreign currency fluctuation risk mainly by being financed for the loans receivable by bank loans denominated in the same foreign currency.

Notes and accounts payable—trade and accounts payable—other are due within one year. Accounts payable—trade and others relating to LNG are exposed to foreign currency fluctuation risk, and the risk is hedged mainly by foreign exchange forward contracts.

Loans payable are mainly for domestic capital investment and overseas business investment. Loans denominated in foreign currencies with floating interest rates are exposed to interest rate and foreign currency fluctuation risks. Part of these loans is being financed for our subsidiaries and affiliates by bank loans denominated in the same foreign currency and with a floating interest rate.

In addition, foreign currencies to provide mainly for overseas business investment are exposed to foreign currency fluctuation risk. The Group reduces such risk by utilizing foreign exchange forward contracts.

The Group utilizes foreign exchange forward contracts as mentioned above. Implementation and management of derivative transactions are based on the internal regulations which prescribe the authorization and maximum upper limit of the transactions, and the department responsible for derivative transactions executes transactions after obtaining approval from the person responsible for authorization. The Group enters into transactions only with creditworthy financial institutions to reduce the counterparty risk.

Liquidity risk associated with financing is managed mainly by preparing monthly financial plans.

(c) Supplemental information on fair value of financial instruments

As well as the values based on market prices, fair values of financial instruments include values which are reasonably calculated when market prices do not exist. As the calculation of those values includes variable factors, those values may vary if different assumptions are applied.

Also, for the contract amount, etc. regarding derivative transactions described in Note 12. Derivative Transactions, the contract amount itself does not indicate market risk related to derivative transactions.

(2) Fair value of financial instruments

Carrying value in the consolidated balance sheets, fair value and the difference as of March 31, 2021 and 2020 are as follows. The financial instruments whose fair value is extremely difficult to determine are not included below.

	Millions of yen		
March 31, 2021	Carrying value	Fair value	Difference
Cash and deposits	**¥162,368**	**¥162,368**	**¥ 0**
Notes and accounts receivable—trade	**39,519**	**39,519**	**—**
Securities and investment securities	**87,281**	**87,288**	**6**
Long-term loans receivable	**48**	**48**	**—**
Total assets	**¥289,218**	**¥289,224**	**¥ 6**
Notes and accounts payable—trade	**¥ 21,546**	**¥ 21,546**	**¥—**
Current portion of long-term borrowings	**62,175**	**62,175**	**—**
Long-term borrowings	**50,180**	**50,180**	**—**
Total liabilities	**¥133,901**	**¥133,901**	**¥—**
Derivative transactions (*)	**¥ 426**	**¥ 426**	**¥—**

	Millions of yen		
March 31, 2020	Carrying value	Fair value	Difference
Cash and deposits	¥160,077	¥160,078	¥ 1
Notes and accounts receivable—trade	27,510	27,510	—
Securities and investment securities	72,781	72,786	5
Long-term loans receivable	43	43	—
Total assets	¥260,412	¥260,418	¥ 6
Notes and accounts payable—trade	¥ 12,237	¥ 12,237	¥—
Current portion of long-term borrowings	6,833	6,833	—
Long-term borrowings	118,774	118,774	—
Total liabilities	¥137,845	¥137,845	¥—
Derivative transactions (*)	¥ 282	¥ 282	¥—

	Thousands of U.S. dollars		
March 31, 2021	Carrying value	Fair value	Difference
Cash and deposits	**$1,476,072**	**$1,476,072**	**$ 0**
Notes and accounts receivable—trade	**359,263**	**359,263**	**—**
Securities and investment securities	**793,463**	**793,527**	**54**
Long-term loans receivable	**436**	**436**	**—**
Total assets	**$2,629,254**	**$2,629,309**	**$54**
Notes and accounts payable—trade	**$ 195,872**	**$ 195,872**	**$—**
Current portion of long-term borrowings	**565,227**	**565,227**	**—**
Long-term borrowings	**456,181**	**456,181**	**—**
Total liabilities	**$1,217,281**	**$1,217,281**	**$—**
Derivative transactions (*)	**$ 3,872**	**$ 3,872**	**$—**

(*) Net assets and liabilities arising from derivative transactions are presented on a net basis, and the liability position is shown in parenthesis.

Note 1. Calculation method for fair value of financial instruments and information on securities and derivative transactions

Assets

• Cash and deposits

As for deposits without maturities, the fair value is based on the carrying value since the fair value is considered to be the equivalent of the carrying value. As for deposits with maturities, the present value is calculated by discounting future cash flows for each segment based on the term, using a deposit interest rate which is assumed to be applied to a new deposit.

• Notes and accounts receivable—trade

The carrying value is deemed as the fair value since these are scheduled to be settled in a short period of time.

• Securities and investment securities

The fair value of equity securities is based on the price on stock exchanges, and that of debt securities is based on the price on bond markets or provided by counterparty financial institutions. The fair value of investment trusts is based on the constant value or price provided by counterparty financial institutions. Please refer to Note 4. Securities and Investment Securities, for matters relating to securities by holding purpose.

• Long-term loans receivable

The carrying value is deemed as the fair value for long-term loans receivable with floating interest rates since these loans reflect the market interest rates in a short period of time and the carrying value approximates the fair value unless the credit condition has changed dramatically since the loans were executed.

Notes to Consolidated Financial Statements

Liabilities

• Notes and accounts payable—trade

The carrying value is deemed as the fair value since they are scheduled to be settled in a short period of time.

• Current portion of long-term borrowings, Long-term borrowings

The carrying value is deemed as the fair value for those with floating interest rates since these loans reflect the market interest rates in a short period of time and the credit condition of the Company has not significantly changed since the loans were executed. For fixed rate loans, the present value is calculated by discounting the total amount of principal and interest for each category based on the length of term, using a loan interest rate which is assumed to be applied to a similar loan.

Derivative transactions

Please refer to Note 12. Derivative Transactions.

Note 2. Financial instruments whose fair value is extremely difficult to determine

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Carrying value:			
Unlisted equity securities	¥16,307	¥20,141	$148,245
Unlisted corporate bonds	4,510	—	41,000

The above securities are not included in securities and investment securities in the tables above, as there were no market prices available and it is extremely difficult to determine the fair value.

Carrying value of unlisted corporate bonds as of March 31, 2021 were reduced by ¥1,858 million ($16,890 thousand) due to application of the equity method.

(3) Redemption schedule for monetary claims and securities with maturities

	Millions of yen			
March 31, 2021	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and deposits	¥162,365	¥—	¥—	¥ —
Notes and accounts receivable—trade	39,519	—	—	—
Securities and investment securities:				
Held-to-maturity debt securities:				
Corporate bonds	—	—	—	6,369
Available-for-sale securities with maturities:				
Debt securities (Corporate bonds)	30	30	—	—
Long-term loans receivable	—	40	7	—
Total	¥201,915	¥70	¥ 7	¥6,369

	Millions of yen			
March 31, 2020	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and deposits	¥160,075	¥ —	¥—	¥—
Notes and accounts receivable—trade	27,510	—	—	—
Securities and investment securities:				
Held-to-maturity debt securities:				
Corporate bonds	—	—	—	—
Available-for-sale securities with maturities:				
Debt securities (Corporate bonds)	—	60	—	—
Long-term loans receivable	—	37	5	—
Total	¥187,586	¥97	¥ 5	¥—

	Thousands of U.S. dollars			
March 31, 2021	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Cash and deposits	$1,476,045	$ —	$ —	$ —
Notes and accounts receivable—trade	359,263	—	—	—
Securities and investment securities:				
Held-to-maturity debt securities:				
Corporate bonds	—	—	—	57,900
Available-for-sale securities with maturities:				
Debt securities (Corporate bonds)	272	272	—	—
Long-term loans receivable	—	363	63	—
Total	$1,835,590	$636	$63	$57,900

(4) Scheduled maturities of long-term borrowings

	Millions of yen			
March 31, 2021	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Long-term borrowings	¥62,175	¥25,610	¥24,840	¥—
Total	¥62,175	¥25,610	¥24,840	¥—

	Millions of yen			
March 31, 2020	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Long-term borrowings	¥6,833	¥50,917	¥62,359	¥5,898
Total	¥6,833	¥50,917	¥62,359	¥5,898

	Thousands of U.S. dollars			
March 31, 2021	Due in one year or less	Due after one year through five years	Due after five years through ten years	Due after ten years
Long-term borrowings	$565,227	$232,818	$225,818	$—
Total	$565,227	$232,818	$225,818	$—

Notes to Consolidated Financial Statements

12. Derivative Transactions

The Group utilizes derivative transactions for the purpose of hedging its risks to adverse fluctuations in foreign currency exchange rates and crude oil prices but does not enter into such transactions for trading or speculative purposes.

The Group is exposed to credit risk in the event of nonperformance by the counterparties to the derivative transactions, but any such risk would not be material because the Group enters into transactions only with creditworthy financial institutions.

(1) Derivative transactions for which hedge accounting is not applied

Currency related transactions

No currency related derivative contract was outstanding as of March 31, 2021.

	Millions of yen			
March 31, 2020	Contract amount, etc.	Due after one year	Fair value (*)	Valuation gains/ (losses)
Over-the-counter transactions				
Foreign exchange forward contracts				
Canadian dollars (Selling)	¥14,637	¥—	¥29	¥29
Total	¥14,637	¥—	¥29	¥29

(*) Fair value is measured based on quotes, etc. provided by financial institutions, etc.

(2) Derivative transactions for which hedge accounting is applied

Currency related transactions

	Millions of yen			Thousands of U.S. dollars		
March 31, 2021	Contract amount, etc.	Due after one year	Fair value (*)	Contract amount, etc.	Due after one year	Fair value (*)
Deferral hedge accounting						
Foreign exchange forward contracts						
U.S. dollars (Buying) - Accounts payable—trade	¥ 2,188	¥—	¥ 28	$ 19,890	$—	$ 254
U.S. dollars (Buying) - Accounts payable—other	29,643	—	398	269,481	—	3,618
Total	¥31,831	¥—	¥426	$289,372	$—	$3,872

	Millions of yen		
March 31, 2020	Contract amount, etc.	Due after one year	Fair value (*)
Deferral hedge accounting			
Foreign exchange forward contracts			
U.S. dollars (Buying) - Accounts payable—trade	¥1,084	¥—	¥ (4)
U.S. dollars (Buying) - Accounts payable—other	31	—	0
U.S. dollars (Selling) - Accounts receivable—trade	2,628	—	(40)
Total	¥3,743	¥—	¥(44)

(*) Fair value is measured based on quotes, etc. provided by financial institutions, etc.

Commodity related transactions

No commodity related derivative contract was outstanding as of March 31, 2021.

	Millions of yen		
March 31, 2020	Contract amount, etc.	Due after one year	Fair value (*)
Deferral hedge accounting			
Crude oil swap contracts			
Receive fixed price/ pay market price - Accounts receivable—trade	¥2,453	¥—	¥296
Total	¥2,453	¥—	¥296

(*) Fair value is measured based on quotes, etc. provided by financial institutions, etc.

13. Asset Retirement Obligations

(1) Asset retirement obligations recognized in the consolidated balance sheets

Asset retirement obligations recognized by the Group are determined based on the estimated costs of decommissioning oil and natural gas wells and production facilities in accordance with laws, land lease contracts, etc. for wells and production facilities in Japan and overseas, and the appropriate discount rates.

The Group estimates the periods in which the obligations are paid out to be approximately 2 to 41 years (2 to 46 years in 2020) from acquisition of assets. This estimate is reasonably made based on the plans for decommissioning wells and facilities or the estimated producing lives of fields if no such plan exists. Discount rates applied are (0.217)% to 2.287% ((0.217)% to 2.287% in 2020) for domestic obligations and 1.21% to 7% (1.76% to 7% in 2020) for overseas.

Although the future costs to be incurred upon decommissioning and timing when the obligations are incurred are based on the Group's best estimate, uncertainty exists regarding both the amount and timing of incurring these costs.

Notes to Consolidated Financial Statements

Changes in the balance of asset retirement obligations for the years ended March 31, 2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Balance at beginning of period	¥15,660	¥15,593	$142,363
Increase due to acquisition of new assets	66	36	600
Increase due to change in estimate	5,677	7	51,609
Accretion expense	222	230	2,018
Liabilities settlement	(101)	(151)	(918)
Foreign currency translation adjustment	(85)	65	(772)
Other changes, net	(3)	(120)	(27)
Balance at end of period	¥21,436	¥15,660	$194,872

Change in estimate for asset retirement obligations

The Company changed its estimate for asset retirement obligations that had been recorded as costs related to the future removal of the offshore platform and well abandonment in the Iwafune-oki oil and gas field (hereinafter referred to as costs related to removal) due to the acquisition of new information on costs related to removal in the year ended March 31, 2021. Accordingly, the Company has changed its estimate for the costs related to removal to be required at the time of business termination. The increase of ¥5,375 million ($48,863 thousand) due to the change in estimate has been added to the balance of asset retirement obligations before the change in estimate.

As a result of this change in estimate, operating profit decreased by ¥873 million ($7,936 thousand) and loss before income taxes increased by ¥4,441 million ($40,372 thousand).

(2) Asset retirement obligations other than those recognized in the consolidated balance sheets

The Group has obligations to restore sites to their original condition in accordance with laws, land lease contracts, etc. regarding oil and natural gas production facilities. However, maintaining and ensuring a stable supply of natural gas in the Infrastructure/Utility Business, which is the Group's primary business operation, is of high public interest; therefore, even after completion of production activities, the Group plans to continue to use some of the assets held for the purpose of producing and selling oil and gas on a permanent basis in order to fulfill the responsibilities as a supplier for users of natural gas by holistically integrating these assets. Thus, the Group does not recognize the relevant asset retirement obligations since it is impossible to determine the timing of decommissioning and estimate asset retirement obligations on a reasonable basis as of March 31, 2021 and 2020.

The following table summarizes the details of balance of asset retirement obligations for the year ended March 31, 2021.

	Millions of yen			
March 31, 2021	At beginning of period	Increase	Decrease	At end of period
Under provisions of Petroleum and Inflammable Natural Gas Resources Development Law	¥ 8,615	¥ 937	¥ —	¥ 9,552
Under provisions of Environmental Protection and Enhancement Act, etc. enforced in Canada	2,251	424	146	2,529
Under provisions of Act on Prevention of Marine Pollution and Maritime Disaster	2,345	4,585	—	6,930
Under provisions of land lease contracts and other	2,449	18	44	2,422
Total	¥15,660	¥5,966	¥190	¥21,436

	Thousands of U.S. dollars			
March 31, 2021	At beginning of period	Increase	Decrease	At end of period
Under provisions of Petroleum and Inflammable Natural Gas Resources Development Law	$ 78,318	$ 8,518	$ —	$ 86,836
Under provisions of Environmental Protection and Enhancement Act, etc. enforced in Canada	20,463	3,854	1,327	22,990
Under provisions of Act on Prevention of Marine Pollution and Maritime Disaster	21,318	41,681	—	63,000
Under provisions of land lease contracts and other	22,263	163	400	22,018
Total	$142,363	$54,236	$1,727	$194,872

14. Contingent Liabilities

At March 31, 2021 and 2020, the Group had the following contingent liabilities:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Guarantee obligation for loans payable from financial institutions:			
Employees (Housing loans)	¥ 38	¥ 61	$ 345
Kumamoto Mirai LNG Co., Ltd.	38	44	345
Greenland Petroleum Exploration Co., Ltd.	19	18	172
INPEX North Caspian Sea, Ltd.	—	8,012	—
Guarantee obligation relating to production facilities:			
Kangean Energy Indonesia Ltd.	736	1,364	6,690
Total	¥832	¥9,501	$7,563

Notes to Consolidated Financial Statements

15. Information Related to Consolidated Statement of Changes in Net Assets

(1) Dividends paid to shareholders

2021

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount (Thousands of U.S. dollars)	Amount per share (Yen)	Amount per share (U.S. dollars)	Shareholders' cut-off date	Effective date
June 26, 2020	Annual General Meeting of Shareholders	Common stock	**¥1,428**	**$12,981**	**¥25**	**$0.22**	March 31, 2020	June 29, 2020
November 10, 2020	Board of Directors	Common stock	**¥1,428**	**$12,981**	**¥25**	**$0.22**	September 30, 2020	December 14, 2020

Note: Amount approved at the meeting of the Board of Directors held on November 10, 2020 includes dividends of ¥1 million ($9 thousand) for shares held by the Board Benefit Trust (BBT).

2020

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)		Amount per share (Yen)		Shareholders' cut-off date	Effective date
June 27, 2019	Annual General Meeting of Shareholders	Common stock	¥1,714		¥30		March 31, 2019	June 28, 2019
November 8, 2019	Board of Directors	Common stock	¥1,428		¥25		September 30, 2019	December 16, 2019

(2) Dividends with a shareholders' cut-off date during the fiscal year but an effective date subsequent to the fiscal year

2021

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)	Amount (Thousands of U.S. dollars)	Paid from	Amount per share (Yen)	Amount per share (U.S. dollars)	Shareholders' cut-off date	Effective date
June 25, 2021	Annual General Meeting of Shareholders	Common stock	**¥1,428**	**$12,981**	Retained earnings	**¥25**	**$0.22**	March 31, 2021	June 28, 2021

Note: Amount approved at the Annual General Meeting of Shareholders held on June 25, 2021 includes dividends of ¥1 million ($9 thousand) for shares held by the Board Benefit Trust (BBT).

2020

Date of approval	Resolution approved by	Type of shares	Amount (Millions of yen)		Paid from	Amount per share (Yen)		Shareholders' cut-off date	Effective date
June 26, 2020	Annual General Meeting of Shareholders	Common stock	¥1,428		Retained earnings	¥25		March 31, 2020	June 29, 2020

16. Selling, General and Administrative Expenses

The main components of selling, general and administrative expenses for the years ended March 31, 2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Selling, general and administrative expenses:			
Personnel expenses	**¥11,225**	¥11,152	**$ 102,045**
Significant components of personnel expenses:			
Retirement benefit expenses	**564**	506	**5,127**
Freightage costs	**7,093**	6,595	**64,481**
Depreciation	**4,333**	4,446	**39,390**

Research and development expenses included in general and administrative expenses for the years ended March 31, 2021 and 2020 were ¥190 million ($1,727 thousand) and ¥360 million, respectively.

17. Impairment Losses

For the purpose of recognition and measurement of impairment losses, business-use assets of the Group such as oil and gas fields are principally grouped into minimum cash generating units. However, idle assets are individually considered.

For the year ended March 31, 2021, the Group recorded impairment losses on the following asset groups:

	Millions of yen	Thousands of U.S. dollars
	2021	**2021**
Business-use assets related to Yufutsu oil and gas field:		
Tomakomai City, Hokkaido		
Buildings and structures	**¥ 1,598**	**$ 14,527**
Machinery, equipment and vehicles	**3,466**	**31,509**
Land	**3,780**	**34,363**
Other	**2,326**	**21,145**
Total	**¥11,172**	**$101,563**
Business-use assets related to Iwafune-oki oil and gas field:		
Tainai City, Niigata Prefecture		
Machinery, equipment and vehicles	**¥ 3,821**	**$ 34,736**
Other	**824**	**7,490**
Total	**¥ 4,645**	**$ 42,227**
Other	**¥ 533**	**$ 4,845**

Notes to Consolidated Financial Statements

For the business-use assets related to Yufutsu oil and gas field, the carrying value of the business-use assets used for production operations was reduced to the recoverable amount based on estimated future cash flows mainly in relation to a downward revision in the crude oil price forecast, and the reduction was recorded as impairment losses.

The recoverable amount of this asset group was measured mainly at value in use. For the year ended March 31, 2021, its cash flow generated from those assets was expected to be negative so that the memorandum value is used for the book value of this asset group.

For the business-use assets related to Iwafune-oki oil and gas field, the carrying value of the business-use assets used for production operations was reduced to the recoverable amount based on estimated future cash flows mainly in relation to an increase in asset retirement obligations due to a change in the estimate for expenses related to future removal of the Iwafune offshore platform and well abandonment, and the reduction was recorded as impairment losses.

The recoverable amount of this asset group was measured at value in use and calculated by discounting future cash flows by 8%.

For the year ended March 31, 2020, the Group recorded impairment losses on the following asset groups:

	Millions of yen
	2020
Business-use assets related to Amarume oil field:	
Shonai Town, Yamagata Prefecture	
Buildings and structures	¥148
Machinery, equipment and vehicles	305
Land	67
Other	2
Total	¥524

For the business-use assets related to Amarume oil field, the carrying value of the business-use assets used for production operations was reduced to the recoverable amount based on estimated future cash flows mainly in relation to the decline in crude oil prices, and the reduction was recorded as impairment losses.

The recoverable amount was measured mainly at value in use. For the year ended March 31, 2020, its cash flow generated from those assets was expected to be negative so that the memorandum value is used for the book value of this asset group.

18. Loss on Disaster

For the year ended March 31, 2021, loss on disaster of ¥948 million ($8,618 thousand) includes provision for loss on disaster of ¥913 million ($8,300 thousand).

19. Information on Related Party Transactions

(1) Related party transactions

(a) Principal transactions between the Company and related parties

Principal transactions between the Company and Sakhalin Oil and Gas Development Co., Ltd., the affiliate accounted for using the equity method, for the years ended March 31, 2021 and 2020 and related balances are as follows:

	Millions of yen		Thousands of U.S. dollars
Transactions:	2021	2020	2021
Purchase of crude oil (*1)	¥44,857	¥66,274	$407,790

	Millions of yen		Thousands of U.S. dollars
Balances:	2021	2020	2021
Accounts payable—trade	¥10,148	¥3,180	$92,254

Principal transactions between the Company and Fukushima Gas Power Co., Ltd. (FGP), the affiliate of the Company (was an affiliate accounted for using the equity method in the year ended March 31, 2021), for the years ended March 31, 2021 and 2020 and related balances are as follows:

	Millions of yen		Thousands of U.S. dollars
Transactions:	2021	2020	2021
Underwriting of corporate bonds (*2)	¥ 6,369	¥ —	$ 57,900
Pledge of collateral (*3)	40,622	40,862	369,290

	Millions of yen		Thousands of U.S. dollars
Balances:	2021	2020	2021
Investment securities	¥4,510	¥—	$41,000

(*1) Prices for purchase of crude oil from Sakhalin Oil and Gas Development Co., Ltd. are determined based on the market price.

(*2) The Company underwrites corporate bonds issued by FGP and determines the interest rate of the corporate bonds reasonably in consideration of market interest rates. The balance as of the year-end is the amount used for the consolidated balance sheet, and it reflects a deduction of ¥1,858 million ($16,890 thousand) due to the application of the equity method.

(*3) The Company provides FGP with certificates of FGP shares and corporate bonds (FGP shares in 2020) held by the Company as collateral for its borrowings from financial institutions. The amount of the transactions indicates the balance of borrowings corresponding to assets pledged as collateral as of the year-end.

Notes to Consolidated Financial Statements

(b) Principal transactions between the Company's consolidated subsidiaries and related parties

Principal transactions between the Company's consolidated subsidiary and Japan Oil, Gas and Metals National Corporation, in which major shareholders of the Company own a majority of voting rights, for the years ended March 31, 2021 and 2020 are as follows.

	Millions of yen		Thousands of U.S. dollars
Transactions:	2021	2020	2021
Debt guarantee (*)	¥55,834	¥—	$507,581

(*) The Company has received debt guarantees for borrowings from financial institutions, and it pays a guarantee fee calculated based on the amount of the debt guarantee. The transaction amount is the balance of guarantees received as of the year-end.

(2) Note to significant affiliates

For the years ended March 31, 2021 and 2020, the summarized consolidated financial information of all affiliates accounted for using the equity method (12 companies in 2021 and 11 in 2020), including a significant affiliate, Sakhalin Oil and Gas Development Co., Ltd. is as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Total current assets	¥ 91,929	¥105,489	$ 835,718
Total non-current assets	169,489	43,705	1,540,809
Total current liabilities	58,169	66,698	528,809
Total non-current liabilities	164,543	27,523	1,495,845
Total net assets	38,706	54,972	351,872
Net sales	201,229	286,711	1,829,354
Profit before income taxes	71,917	129,788	653,790
Profit	41,604	81,078	378,218

20. Amounts per Share

Basic earnings (loss) per share is computed based on the profit (loss) attributable to common shareholders of parent and the average number of shares of common stock outstanding during the period, which is 57,106 thousand shares and 57,152 thousand shares during the years ended March 31, 2021 and 2020, respectively.

Net assets per share is computed based on net assets available to common shareholders of parent and the number of shares of common stock outstanding at the year-end.

	Yen		U.S. dollars
	2021	2020	2021
Basic earnings (loss) per share	¥ (47.73)	¥ 469.18	$ (0.43)
Net assets per share	7,011.36	7,046.18	63.73

Note 1: Diluted earnings per share is not disclosed due to the absence of dilutive shares for the years ended March 31, 2021 and 2020.

Note 2: The Company's shares held by the Board Benefit Trust (BBT) are included in the treasury shares to be deducted from the total number of shares outstanding at the end of the year for computation of net assets per share (77,600 shares as of March 31, 2021). In addition, these shares held by BBT are included in the treasury shares to be deducted when calculating the average number of shares for computation of basic earnings (loss) per share (46,021 shares as of March 31, 2021).

21. Cash Flow Information

Reconciliations between cash and cash equivalents in the consolidated statements of cash flows for the years ended March 31, 2021 and 2020 and cash and deposits in the consolidated balance sheets as of March 31, 2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Cash and deposits	¥162,368	¥160,077	$1,476,072
Time deposits with maturities in excess of three months	(7,405)	(25,817)	(67,318)
Short-term investments with maturities of three months or less, etc.:			
Money management fund and other	3,000	4,000	27,272
Cash and cash equivalents	¥157,963	¥138,259	$1,436,027

Notes to Consolidated Financial Statements

22. Other Comprehensive Income

Reclassification adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2021 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2021	2020	2021
Valuation difference on available-for-sale securities:			
Gains (losses) arising during the year	¥15,500	¥(45,921)	$140,909
Reclassification adjustments	—	(239)	—
Pre-tax amount	15,500	(46,161)	140,909
Tax effect	(4,339)	12,924	(39,445)
Valuation difference on available-for-sale securities	11,160	(33,236)	101,454
Deferred gains or losses on hedges:			
Gains (losses) arising during the year	174	256	1,581
Reclassification adjustments	—	—	—
Pre-tax amount	174	256	1,581
Tax effect	(48)	(71)	(436)
Deferred gains or losses on hedges	125	184	1,136
Foreign currency translation adjustment:			
Gains (losses) arising during the year	(7,852)	(140)	(71,381)
Reclassification adjustments	(1)	105	(9)
Foreign currency translation adjustment	(7,853)	(34)	(71,390)
Remeasurements of defined benefit plans, net of tax:			
Gains (losses) arising during the year	1,501	(209)	13,645
Reclassification adjustments	(237)	(287)	(2,154)
Pre-tax amount	1,264	(496)	11,490
Tax effect	(354)	139	(3,218)
Remeasurements of defined benefit plans, net of tax	910	(357)	8,272
Share of other comprehensive income of entities accounted for using equity method:			
Gains (losses) arising during the year	(626)	(95)	(5,690)
Reclassification adjustments	48	170	436
Adjustment for asset acquisition cost	60	—	545
Share of other comprehensive income of entities accounted for using equity method	(517)	74	(4,700)
Total other comprehensive income	¥ 3,825	¥(33,369)	$ 34,772

23. Segment Information

(1) Overview of reportable segments

Reportable segments are defined as components of the Group for which separate financial information is available and whose operating results are regularly evaluated by the Board of Directors to make decisions about how resources are allocated among the Group and assess its performance.

In addition to our domestic operations, the Group develops its overseas operations through project companies established at each operational site.

Therefore, the Group consists of segments based on the operational site, and identifies “Japan,” “North America,” “Europe” and “Middle East” as its reportable segments.

“Japan” is engaged in exploration, development, production of crude oil and natural gas and sales of crude oil as the E&P Business in Japan. Also, the segment is engaged in sales of natural gas and LNG, transportation of natural gas on consignment, power generation and sales of electric power as the Infrastructure/Utility Business, and production, purchase, sales and transportation of petroleum products and contract drilling of wells as the other businesses.

“North America” is engaged in exploration, development, production, purchasing, sales, etc. of crude oil, natural gas and bitumen (extra-heavy oil extracted from oil sands) as the E&P Business in North America.

“Europe” is engaged in development of crude oil and natural gas as the E&P Business in Europe.

“Middle East” is engaged in development, production, sales, etc. of crude oil as the E&P Business in the Middle East.

(2) Basis of measurement for the amounts of net sales, profit (loss), assets and other items for each reportable segment

The accounting policies of each reportable segment are basically consistent with those disclosed in Note 2. Significant Accounting Policies. Segment profit is measured on a basis of operating profit. Intersegment sales and transfers are accounted for based on actual market prices.

Notes to Consolidated Financial Statements

(3) Information about net sales, profit (loss), assets and other items

March 31, 2021	Millions of yen: Reportable segment: Japan	North America	Europe	Middle East	Total	Other (Note 1)	Total	Adjustments and eliminations (Note 2)	Amounts on consolidated financial statements (Note 3)
Net sales:									
Sales to third parties	¥213,308	¥ 26,065	¥ —	¥ 703	¥240,078	¥ —	¥240,078	¥ —	¥240,078
Intersegment sales and transfers	11	—	—	16,045	16,056	—	16,056	(16,056)	—
Total sales	213,319	26,065	—	16,749	256,134	—	256,134	(16,056)	240,078
Segment profit (loss)	21,988	(9,374)	(132)	165	12,645	—	12,645	(8,453)	4,192
Segment assets	79,397	180,230	7,968	13,211	280,808	—	280,808	343,978	624,786
Other items:									
Depreciation and amortization	12,595	9,590	0	192	22,378	—	22,378	221	22,599
Share of profit (loss) of entities accounted for using equity method	(319)	—	—	(10)	(329)	6,138	5,808	—	5,808
Investments in entities accounted for using the equity method	679	—	—	286	966	17,121	18,087	—	18,087
Increase in property, plant and equipment and intangible assets	4,961	7,456	2,104	—	14,522	—	14,522	149	14,672

March 31, 2020	Millions of yen: Reportable segment: Japan	North America	Europe	Middle East	Total	Other (Note 1)	Total	Adjustments and eliminations (Note 2)	Amounts on consolidated financial statements (Note 3)
Net sales:									
Sales to third parties	¥268,365	¥48,703	¥ —	¥1,754	¥318,822	¥ —	¥318,822	¥ —	¥318,822
Intersegment sales and transfers	8	—	—	42,136	42,144	—	42,144	(42,144)	—
Total sales	268,373	48,703	—	43,890	360,967	—	360,967	(42,144)	318,822
Segment profit (loss)	18,834	3,422	(164)	612	22,705	(1)	22,703	(8,419)	14,283
Segment assets	97,780	191,611	6,018	13,628	309,038	—	309,038	318,093	627,132
Other items:									
Depreciation and amortization	12,407	12,138	0	293	24,839	—	24,839	351	25,190
Share of profit (loss) of entities accounted for using equity method	152	—	—	(8)	144	11,816	11,960	—	11,960
Investments in entities accounted for using the equity method	347	—	—	286	634	20,494	21,128	—	21,128
Increase in property, plant and equipment and intangible assets	3,787	4,907	1,697	—	10,392	—	10,392	255	10,648

March 31, 2021	Thousands of U.S. dollars: Reportable segment: Japan	North America	Europe	Middle East	Total	Other (Note 1)	Total	Adjustments and eliminations (Note 2)	Amounts on consolidated financial statements (Note 3)
Net sales:									
Sales to third parties	$1,939,163	$236,954	$ —	$6,390	$2,182,527	$ —	$2,182,527	$ —	$2,182,527
Intersegment sales and transfers	100	—	—	145,863	145,963	—	145,963	(145,963)	—
Total sales	1,939,263	236,954	—	152,263	2,328,490	—	2,328,490	(145,963)	2,182,527
Segment profit (loss)	199,890	(85,218)	(1,200)	1,500	114,954	—	114,954	(76,845)	38,109
Segment assets	721,790	1,638,454	72,436	120,100	2,552,800	—	2,552,800	3,127,072	5,679,872
Other items:									
Depreciation and amortization	114,500	87,181	0	1,745	203,436	—	203,436	2,009	205,445
Share of profit (loss) of entities accounted for using equity method	(2,900)	—	—	(90)	(2,990)	55,800	52,800	—	52,800
Investments in entities accounted for using the equity method	6,172	—	—	2,600	8,781	155,645	164,427	—	164,427
Increase in property, plant and equipment and intangible assets	45,100	67,781	19,127	—	132,018	—	132,018	1,354	133,381

Note 1: “Other” which does not belong to reportable segments includes Russia, etc.

Note 2: “Adjustments and eliminations” includes the following:

(a) Segment profit (loss)

	Millions of yen 2021	Millions of yen 2020	Thousands of U.S. dollars 2021
Intersegment elimination	¥ 14	¥ 16	$ 127
Corporate expense (*)	(8,467)	(8,436)	(76,972)
Total	¥(8,453)	¥(8,419)	$(76,845)

(*) “Corporate expense” represents mainly general and administrative expenses and experiment and research expense that are not allocated to reportable segments.

(b) Segment assets

	Millions of yen 2021	Millions of yen 2020	Thousands of U.S. dollars 2021
Intersegment elimination	¥ (586)	¥ (600)	$ (5,327)
Corporate assets (*1)	3,208	3,204	29,163
Other assets (*2)	341,355	315,489	3,103,227
Total	¥343,978	¥318,093	$3,127,072

(*1) “Corporate assets” represents mainly the assets administrated by the head office that are not allocated to reportable segments.

(*2) Assets allocated to reportable segments consist of property, plant and equipment, intangible assets and recoverable accounts included in investments and other assets. “Other assets” consists of property, plant and equipment, intangible assets and assets other than recoverable accounts, which are not allocated to reportable segments.

Note 3: Segment profit (loss) is reconciled to operating profit in the consolidated statements of income.

Notes to Consolidated Financial Statements

(4) Related information

(a) Information by product and service

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Sales to third parties:			
E&P Business			
Crude oil	**¥ 72,916**	¥128,152	**$ 662,872**
Diluted bitumen	**21,695**	45,025	**197,227**
Natural gas (overseas)	**2,870**	2,265	**26,090**
Infrastructure/Utility Business			
Natural gas (Japan)	**51,291**	64,965	**466,281**
LNG	**15,591**	19,395	**141,736**
Electricity	**30,087**	974	**273,518**
Others	**4,331**	3,353	**39,372**
Other businesses			
Contract services	**7,633**	15,003	**69,390**
Oil products/merchandise	**31,931**	37,502	**290,281**
Other	**1,729**	2,184	**15,718**
Total	**¥240,078**	¥318,822	**$2,182,527**

(b) Information by geographical area

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Net sales:			
Japan	**¥152,325**	¥159,815	**$1,384,772**
Canada	**25,745**	48,062	**234,045**
Russia	**44,918**	66,341	**408,345**
Iraq	**16,768**	43,960	**152,436**
Other	**320**	642	**2,909**
Total	**¥240,078**	¥318,822	**$2,182,527**

Note: Net sales are accounted for by country or geographical area on the basis of the location in which products have been delivered or services have been rendered.

	Millions of yen		Thousands of U.S. dollars
	2021	2020	**2021**
Property, plant and equipment:			
Japan	**¥ 81,422**	¥ 99,523	**$ 740,200**
Canada	**175,541**	186,499	**1,595,827**
Other	**9,781**	8,015	**88,918**
Total	**¥266,745**	¥294,038	**$2,424,954**

(c) Information by major customer

		Millions of yen		Thousands of U.S. dollars
	Segment	**2021**	2020	**2021**
Net sales:				
BP Singapore Pte. Ltd.	Japan	**¥—**	¥34,707	**$—**

Note: Information by major customer for the year ended March 31, 2021 is omitted since there were no sales to single external customer accounting for 10% or more of net sales in the consolidated statement of income.

(5) Information about impairment losses on non-current assets by reportable segment

	Millions of yen						
	Reportable segment						
March 31, 2021	Japan	North America	Europe	Middle East	Other	Corporate/ eliminations	Total
Impairment losses	**¥16,351**	**¥—**	**¥—**	**¥—**	**¥—**	**¥—**	**¥16,351**

	Millions of yen						
	Reportable segment						
March 31, 2020	Japan	North America	Europe	Middle East	Other	Corporate/ eliminations	Total
Impairment losses	¥524	¥—	¥—	¥—	¥—	¥—	¥524

	Thousands of U.S. dollars						
	Reportable segment						
March 31, 2021	Japan	North America	Europe	Middle East	Other	Corporate/ eliminations	Total
Impairment losses	**$148,645**	**$—**	**$—**	**$—**	**$—**	**$—**	**$148,645**

24. Subsequent Event

Resolution concerning conclusion of sales and purchase agreement for interests in the shale gas field of North Montney Area, British Columbia, Canada

The Company resolved, at the meeting of the Board of Directors held on May 13, 2021, to conclude a sales and purchase agreement to transfer all of 10% interests in the shale gas field of North Montney Area, British Columbia, Canada owned by JML, along with related assets, to Petronas Energy Canada Ltd. (headquarters in Alberta, Canada), the operator of the aforementioned field, and concluded the sales and purchase agreement.

In line with the conclusion of the sales agreement, the Company plans to record approximately 493 million Canadian dollars due to loss on transfer of interests in the year ending March 31, 2022.

Independent Auditor's Report

Independent Auditor's Report

The Board of Directors
Japan Petroleum Exploration Co., Ltd.

Opinion

We have audited the accompanying consolidated financial statements of Japan Petroleum Exploration Co., Ltd. and its consolidated subsidiaries (the Group), which comprise the consolidated balance sheet as at March 31, 2021, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended, and notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter

We draw attention to Note 24. Subsequent Events to the consolidated financial statements, which describes that Japan Petroleum Exploration Co., Ltd. resolved, at the meeting of the Board of Directors held on May 13, 2021, to conclude a sales and purchase agreement to transfer all of 10% interests in the shale gas field of North Montney Area, British Columbia, Canada owned by JAPEX Montney Ltd., a consolidated subsidiary of the Japan Petroleum Exploration Co., Ltd., along with related assets, to Petronas Energy Canada Ltd. (headquarters in Alberta, Canada), the operator of the aforementioned field, and concluded the sales and purchase agreement.

Our opinion is not qualified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of the audit of the consolidated financial statements as a whole, and in forming the auditor's opinion thereon, and we do not provide a separate opinion on these matters.

Evaluation of non-current assets (Canada area)	
Description of Key Audit Matter	Auditor's Response
As described in 2. (20) Significant accounting estimates, the Group recorded ¥175,541 million of non-current assets in Canada as of March 31, 2021. ¥54,273 million and ¥121,267 are recorded as the shale gas project of JAPEX Montney Ltd. and the oil sands project of Japan Canada Oil Sands Limited, respectively. For the shale gas project, the Group identified indicators of impairment, but did not recognize any impairment loss because the recoverable amount (value in use) exceeded the carrying amount of the cash-generating unit. The recoverable amount was calculated using the estimated discounted future cash flows based on the business plans approved by management. Assumptions for calculating such future cash flows include, among other things, reserves, natural gas prices, operating expenses, development costs and discount rates. Similarly, for the oil sands project, the Group identified indicators of impairment, but did not recognize any impairment loss because its estimated undiscounted future cash flows exceeded the carrying amount of the asset group. The future cash flows are estimated based on the business plans approved by management. Assumptions for calculating such future cash flows include, among other things, reserves, crude oil prices, operating expenses and development costs. The assessment of impairment indicators on shale gas and oil sands assets and the valuation of these non-current assets are affected by the estimation of future expected production volumes, development costs, operating expenses and crude oil and natural gas prices. These estimations include economic uncertainty due to the long lead time until the recovery of investment, geological uncertainty and technological risk which results in unexpected decrease in reserve and production. We therefore consider the valuation of non-current assets to be a key audit matter given the significance of the accounts on the balance sheet of Canada area and complexity and uncertainty of the estimations and assumptions used by management for their judgement.	We performed the following audit procedures to assess whether the Group properly assessed the indicators of impairment for non-current assets. - We compared the reserves, actual production volumes, forecasted crude oil and natural gas prices and development plan during current year with those during prior year. When any such indicators of impairment are determined to be existed, we discussed the business plans with management, and we also performed the following audit procedures to assess the future cash flows prepared by the Group. - We assessed whether the future cash flows were consistent with the business plans approved by management. - To assess the effectiveness of Group's estimation process, we compared the actual production volumes, operating expenses and development costs with the estimation made in the past. - We compared the future expected production volumes with the reserve report prepared by the specialist. - We compared the estimated operating expenses per production volume with the past results. - We compared the estimated development costs with the budget approved by the participants in the oil and gas development and production project. In addition, we compared the estimated development costs per well with the past results. - We compared the forecasted crude oil and natural gas prices with the forecasts publicly announced by the specialists. - With the support of our network firm's valuation specialists, we assessed the adequacy of the model used by the Group and discount rates in calculating value in use. Regarding the discount rates, we compared the underlying data used by the Group with the available external information.

Independent Auditor’s Report

Evaluation of non-current assets (E&P business in Japan)	
Description of Key Audit Matter	**Auditor’s Response**
As described in 17. Impairment Losses, the Group recorded an impairment loss of ¥11,172 million and ¥4,645 million on the Yufutsu and Iwafune-oki oil and gas field asset groups in the Japan segment, respectively, for the year ended March 31, 2021. When the Group determined that indicators of impairment exist, the Group judges whether impairment loss should be recorded for the asset or asset group, and the impairment loss is recognized as the amount by which the carrying amount of the asset or asset group exceeds its recoverable amount. The Group recognized their lowering of medium- to long-term crude oil price assumption as an impairment indicator on the Yufutsu oil and gas field asset groups, and increase of the asset retirement obligations as an impairment indicator on the Iwafune-oki oil and gas field asset groups. Since the carrying amount of each asset group exceeds the undiscounted future cash flows from the continued use, the Group reduced the carrying amount to the value in use as the recoverable amount. The recoverable amount was calculated using the estimated discounted future cash flows based on the business plans approved by management. Assumptions for calculating the recoverable amount include, among other things, reserves, crude oil and natural gas prices, operating expenses, development costs and discount rates. The assessment of impairment indicators on the E&P business assets in Japan and the valuation of these non-current assets are affected by the estimation of future expected production volumes, development costs, operating expenses and crude oil and natural gas prices. These estimations include economic uncertainty due to the long lead time until the recovery of investment, geological uncertainty and technological risk which results in unexpected decrease in reserve and production. We therefore consider the valuation of non-current assets to be a key audit matter given the significance of the accounts on the balance sheet of the E&P business in Japan and complexity and uncertainty of the estimations and assumptions used by management for their judgement.	We performed the following audit procedures to assess whether the Group properly assessed the indicators of impairment for non-current assets. - We assessed whether cash flows from operating activities are not continuously negative. - We compared the crude oil price which would generate undiscounted future cash flows equal to the carrying amount of non-current assets of each asset group with the crude oil price which the Group used as an assumption for its medium- to long-term business plans for respective asset group. When any such indicators of impairment are determined to be existed, we discussed the business plans with management, and we also performed the following audit procedures to assess the future cash flows prepared by the Group. - We assessed whether the future cash flows were consistent with the business plans approved by management. - To assess the effectiveness of Group’s estimation process, we compared the actual production volumes, operating expenses and development costs with the estimation made in the past. - We compared the future expected production volumes with the reserve report prepared by the specialist. - We compared the estimated operating expenses and development costs with past results. - We compared the forecasted crude oil and natural gas prices with the forecasts publicly announced by specialists. - We compared the discount rate used by the Group with the rate calculated by us.

Responsibilities of Management, the Corporate Auditor and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern and disclosing, as required by accounting principles generally accepted in Japan, matters related to going concern.

The Corporate Auditor and the Board of Corporate Auditors are responsible for overseeing the Group’s financial reporting process.

Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

Independent Auditor's Report

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.
- Consider internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances for our risk assessments, while the purpose of the audit of the consolidated financial statements is not expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation in accordance with accounting principles generally accepted in Japan.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Corporate Auditor and the Board of Corporate Auditors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Corporate Auditor and the Board of Corporate Auditors with a statement that we have complied with the ethical requirements regarding independence that are relevant to our audit of the financial statements in Japan, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Corporate Auditor and the Board of Corporate Auditors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2021 are presented solely for convenience. Our audit also included the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

Ernst & Young ShinNihon LLC
Tokyo, Japan

June 28, 2021

/s/ Yoshio Yukawa
Designated Engagement Partner
Certified Public Accountant

/s/ Kazuhiko Yamazaki
Designated Engagement Partner
Certified Public Accountant

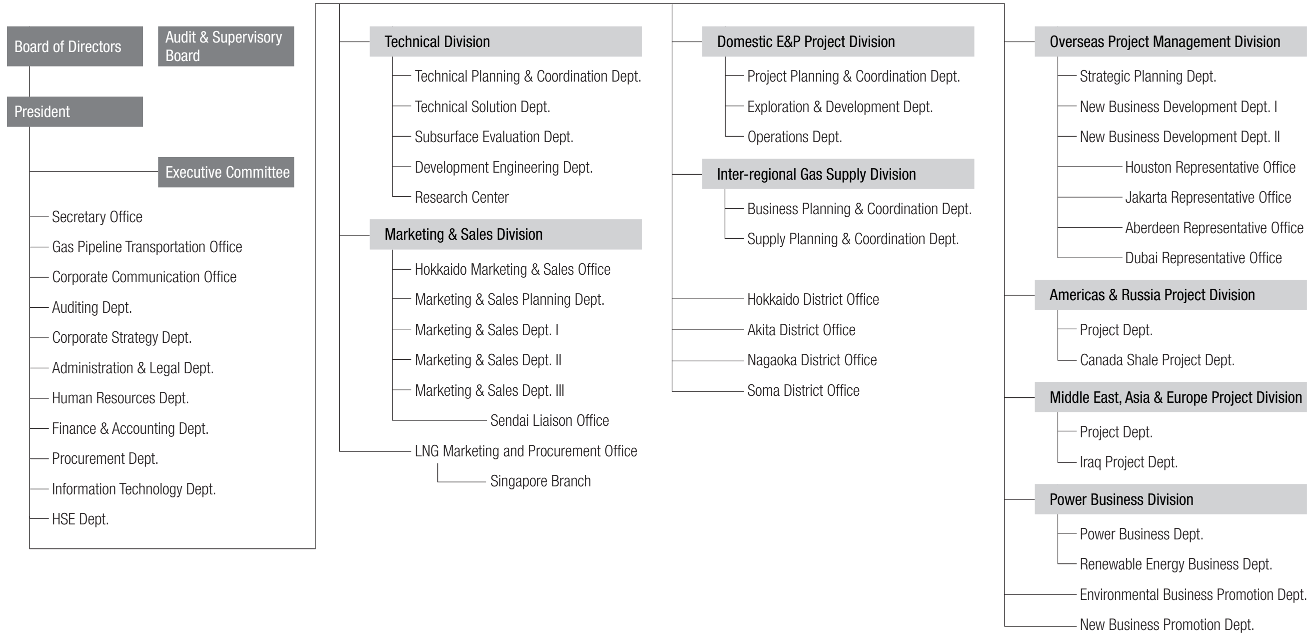
/s/ Takeshi Yoshida
Designated Engagement Partner
Certified Public Accountant

Corporate Data (As of March 31, 2021)

Corporate Profile

Company Name	Japan Petroleum Exploration Co., Ltd. (JAPEX)
Established	April 1, 1970
Paid-in Capital	JPY 14,288,694,000
Fiscal Year	April 1 to March 31 of the following year
Number of Employees	1,780 (Consolidated basis)
Main Businesses	Exploration, development, production, and sales of oil, natural gas, and other energy resources, contract service-related operations such as drilling, and supply of electric power
Main Offices	Headquarters (see below), Hokkaido, Akita, Nagaoka, Soma, Sendai, JAPEX Research Center (Chiba), Houston, Jakarta, Aberdeen, Dubai, Singapore
Headquarters	SAPIA Tower, 1-7-12 Marunouchi, Chiyoda-ku,Tokyo 100-0005, Japan TEL: +81-3-6268-7000 (Administration & Legal Dept.)

Organization



Stock Information

Exchange Listing Tokyo Stock Exchange, First Section (Securities Code Number: 1662)

Common Stock (Authorized) 120,000,000 shares

Common Stock (Issued) 57,154,776 shares

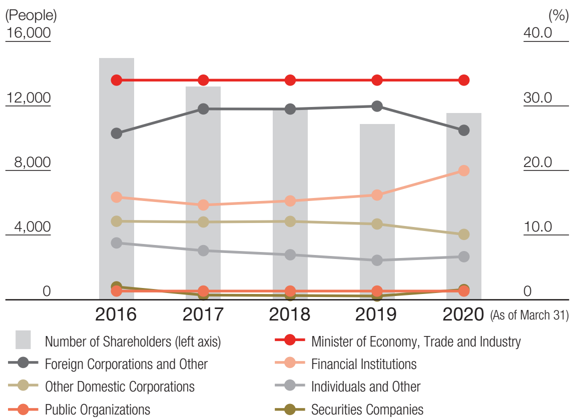
Number of Shareholders 11,551

▼ Major Shareholders

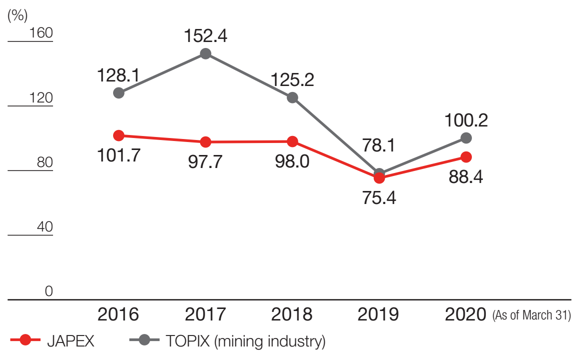
Shareholder Name	Number of Shares	Voting Rights*1 (%)
Minister of Economy, Trade and Industry	19,432,724	34.00
The Master Trust Bank of Japan, Ltd. (Trust)	4,780,700	8.36
INPEX CORPORATION	2,852,212	4.99
CEP LUX-ORBIS SICAV	2,034,504	3.56
Custody Bank of Japan, Ltd. (Trust)	1,547,600	2.71
STATE STREET BANK AND TRUST COMPANY 505103	1,518,906	2.66
NORTHERN TRUST CO. (AVFC) SUB A/C USL NON-TREATY	1,238,900	2.17
JFE Engineering Corporation	924,012	1.62
Mizuho Bank, Ltd.	720,152	1.26
MUFG Bank, Ltd.	600,000	1.05

*1 Voting rights are calculated without treasury shares (2,382).

▼ Number of Shareholders and Shareholding (%) by Shareholder Type



▼ Total Shareholder Returns (TSR)*1 over five years*2



(Comparative index: TOPIX (mining industry) Total Return Index by industry)
*1 Calculated using the formula set by the order of the Cabinet Office for total returns for shareholders, combining capital gains and dividends.
*2 The year-end value from fiscal 2016 onward if invested at the final price as of March 31, 2016.

Corporate Data (As of March 31, 2021)

Group Companies

Consolidated Subsidiaries

Company name	Capital (millions of yen)		Main businesses	JAPEX's stake and percentage of voting rights held (%)	
				Stake	Percentage of voting rights held
Akita Natural Gas Pipeline Co., Ltd.		250	Transportation of natural gas by pipeline in Akita Prefecture	100.00	
SK ENGNEERING CO., LTD		300	Well drilling, engineering services contracting	100.00	
JAPEX SKS Corporation		90	Manufacture and sale of oil products, real estate management, insurance agency	100.00	
North Japan Oil Co., Ltd		80	Sales of crude oil, recycling of waste oil, contracted transportation of crude oil	100.00	
Shirone Gas Co., Ltd.		3,000	Production, supply and sales of gas in Tsubame City and Niigata City, Niigata Prefecture	100.00	
Japex Pipeline Ltd.		80	Pipeline maintenance and management	100.00	
JGI, Inc.		2,100	Geophysical exploration work contracting, geophysical exploration technology development	100.00	
Geophysical Surveying Co., Ltd.		446	Geophysical logging and mud-logging work contract	100.00	
Japex (U.S.) Corp.	1,000 USD	33,000	Exploration, development and production of tight oil in the United States, and capital participation in the Malaysia LNG project	100.00	
Japan Canada Oil Sands Limited*2	1,000 USD	788,255	Exploration, development and production of oil sands under lease agreements in Canada	100.00	(100.00)
Canada Oil Sands Co., Ltd.*2		34,863	Exploration and development of oil sands through Japan Canada Oil Sands Limited	94.58	(0.98)
JAPEX Montney Ltd.*2	1,000 CAD	918,583	Exploration, development and production of shale gas in Canada	55.00	
JAPEX UK E&P Ltd.	1,000 GBP	70,662	Exploration, development and production of crude oil in the UK North Sea	100.00	
North Japan Security Service Co., Ltd.		30	Industrial disaster prevention services, security services	89.42	
Japex Offshore Ltd.		5,963	Exploration, development and production of oil resources on the continental shelf of the Sea of Japan	70.61	
GEOSYS, Inc.*2		49	Contracting of geophysical exploration work, sales of geophysical exploration equipment	57.82	(57.82)
Japex Energy Co., Ltd.		90	Purchase and sale of LNG, petroleum products, etc.	90.00	
Japex Garraf Ltd.		20,930	Exploration, development and production of crude oil in the Garraf oil field, Iraq	55.00	

Equity-Method Affiliates

Company name	Capital (millions of yen)		Main businesses	JAPEX's stake and percentage of voting rights held (%)	
				Stake	Percentage of voting rights held
TOHOKU NATURAL GAS Co., Inc.		300	Purchase and sale of natural gas in the Tohoku region	45.00	
TELNITE CO., LTD.		98	Manufacture and sale of drilling mud preparations, mud services	47.00	
Fukushima Gas Power Co., Ltd.		537	Operation and commissioning of power generation business using a natural power plant	33.30	
Sakhalin Oil and Gas Development Co., Ltd.		22,592	Exploration, development and production of crude oil on Sakhalin Island and its land shelf in the Russian Federation	15.29	
Energi Mega Pratama Inc.	1,000 USD	1,000	Exploration, development and production of crude oil and natural gas in the eastern Java Sea, Republic of Indonesia	25.00	
Kangean Energy Indonesia Ltd.*1, 3	1,000 USD	10	Exploration, development and production of crude oil and natural gas in the eastern Java Sea, Republic of Indonesia	—	[100.00]
EMP Exploration (Kangean) Ltd.*1, 3	1,000 GBP	100	Exploration, development and production of crude oil and natural gas in the eastern Java Sea, Republic of Indonesia	—	[100.00]
Diamond Gas Netherlands B.V.*2	1,000 USD	5,536	Investment in Malaysia LNG Tiga Sdn Bhd's businesses, which produce LNG in Malaysia	20.00	(20.00)
Four other companies					

*1 Figures inside the brackets [ ] for the percentage of voting rights exclude the percentage held by parties who are closely related to or aligned with the Company.
*2 Figures inside the parentheses ( ) for the percentage of voting rights include the percentage of indirectly held voting rights.
*3 These companies are considered affiliates because JAPEX maintains a material influence despite having a stake that is less than 20%.

10 Year Financial Data
https://www.japex.co.jp/ir/uploads/JAPEX_10yearFinancialData_e.xlsx

Financial Results
https://www.japex.co.jp/en/ir/library/result/

Explanatory Materials
https://www.japex.co.jp/en/ir/library/explanatory/

Business Plan
https://www.japex.co.jp/en/ir/management/businessplan/

ESG Data
https://www.japex.co.jp/en/sustainability/management/esgdata

JAPEX

Inquiries:

Japan Petroleum Exploration Co., Ltd
Corporate Communication Office
TEL: +81-3-6268-7111 FAX: +81-3-6268-7302
https://www.japex.co.jp/en/