

Corporate Position on Climate Change

March 25, 2022

*A New Wind
for Energy*



Introduction

INPEX has revised its “Corporate Position on Climate Change^{*1}” based on its “INPEX Vision @2022^{*2}” announced on February 9th, 2022.

This paper outlines INPEX’s position and initiatives concerning the key themes listed to provide stakeholders with a better understanding of how the company is responding to the challenges of climate change.

1. Basic Management Policy Towards a Net Zero Carbon Society by 2050

2. Climate Change Goals

3. Initiatives in the 5 Net Zero Businesses

3-1. Develop a Hydrogen Business

3-2. Promote CCUS^{*3}

3-3. Enhance and Emphasize Renewable Energy Initiatives

3-4. Promote Carbon Recycling and Cultivate New Business Opportunities

3-5. Promote Forest Conservation

4. Towards a Cleaner Upstream Business and Implementation of a Shift to Natural Gas

For more information on the company’s initiatives relating to sustainability including Climate Change response, please refer to our Sustainability Report^{*4}.

*1 : This document is a provisional English translation of the “Corporate Position on Climate Change”.

If any ambiguity of interpretation is found in this provisional translation, the Japanese text shall prevail.

*2 : https://www.inpex.co.jp/english/company/pdf/inpex_vision_2022.pdf

*3 : Carbon dioxide Capture, Utilization and Storage

*4 : <https://www.inpex.co.jp/english/csr/csr/>

Basic Policy on Management Towards a Net Zero Carbon Society by 2050

1

INPEX will proactively engage in energy structure reforms towards the realization of a net zero carbon society by 2050, while responding to the growing energy demands of Japan and the world and fulfilling its responsibility for the development and stable supply of energy over the long-term.

2

The company will set climate change response goals to achieve its own net zero carbon emissions by 2050, to contribute to the realization of the Paris Agreement objectives in relation to climate change.

3

INPEX will expand 5 net zero businesses at an accelerated pace through the following three initiatives, in order to offer solutions responding to the needs of society and become recognized as a credible key player.

1. Leverage the company's strengths (knowledge and experience)

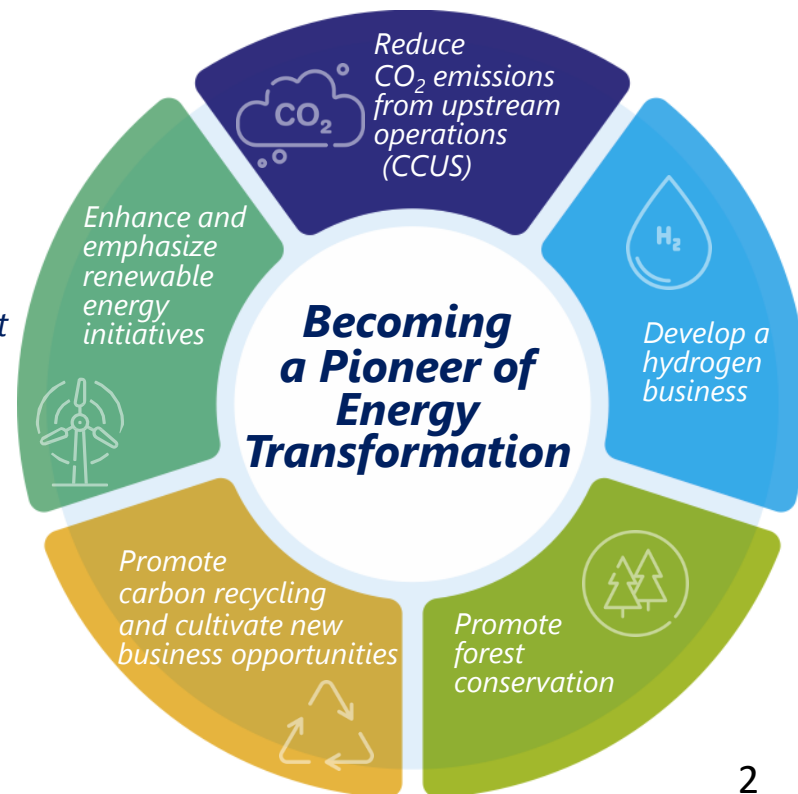
- ▶ INPEX will make the most of its strengths such as its management, technical and operational experience gained in Japan and around the world to select business targets and apply its management resources including human resources, finances and business knowledge.

2. Strengthen collaboration with industry, academia and government

- ▶ Responding to changing times requires innovation and the realization of new business models. INPEX will promote long-term ties and collaboration with industry, academia and government in a broad spectrum of business fields.

3. Utilize policy support measures

- ▶ The company will collaborate on the improvement of policy frameworks and promote rapid and efficient initiatives making use of policy incentives.



Climate Change Goals

- INPEX has set its own goals to contribute to realizing a net zero carbon society as outlined in the Paris Agreement.

2050

NET ZERO^{*1}

*in absolute emissions
(Scope 1+2)*

**1: on INPEX equity share basis*

2030

30% OR MORE^{*2}

*reduction of net carbon intensity
(Scope 1+2)*

**2: in comparison with 2019*

Scope 3

REDUCTION

*work together with
all relevant stakeholders to
address challenges
across the value chains*

TO ACHIEVE THESE GOALS INPEX WILL...

- ▶ Promote CCUS;
- ▶ Strengthen renewable energy initiatives;
- ▶ Promote forest conservation for CO₂ absorption;
- ▶ Maintain current low methane emissions intensity of approximately 0.1%^{*3} (calculated by methane emissions / natural gas production); and
- ▶ Aim to eliminate routine flaring by 2030.^{*3}

**3: in INPEX-operated projects*

PROMOTE THE ONGOING DISCLOSURE OF CLIMATE-RELATED INFORMATION IN LINE WITH TCFD RECOMMENDATIONS.

3 Initiatives in the 5 net zero businesses

3-1. Develop a Hydrogen Business

- Commercialize 3 or more projects by around 2030 and aim to produce and supply 100 thousand tons or more of hydrogen/ammonia per year



3-2. Promote CCUS

- Aim to become a leading company in the CCUS business by targeting an annual CO₂ injection volume of 2.5 million tons or more in around 2030 and promoting technical development and commercialization



3-3. Enhance and Emphasize Renewable Energy Initiatives

- Aim to secure 1-2 gigawatts of installed capacity, mainly in the offshore wind and geothermal power generation business, and become a key player by accelerating business expansion using assets acquired through M&A and other means as a platform



3-4. Promote Carbon Recycling and Cultivate New Business Opportunities

- Promote the adoption of methanation in society and aim to supply about 60 thousand tons* of synthetic methane per year through INPEX's natural gas trunk pipeline network by 2030 while pursuing further development

*Equivalent to approx. 200 thousand households



3-5. Promote Forest Conservation

- Strengthen and expand projects aimed at CO₂ absorption through forest conservation, from supportive measures to project participation



4. Towards a Cleaner Upstream Business and Implementation of a Shift to Natural Gas

- *Aim to achieve zero routine flaring by 2030 and thoroughly make projects cleaner by introducing CCUS, utilizing forest credits, introducing electricity based on renewables and saving energy.*
- *Raise the gas investment ratio from the current level of around 50% to around 70% to increase the gas ratio of the portfolio.*
- *For the natural gas development business, consider feedstock supply for hydrogen and ammonia projects and business transformation opportunities.*

INPEX's Current Initiatives

February 17, 2023

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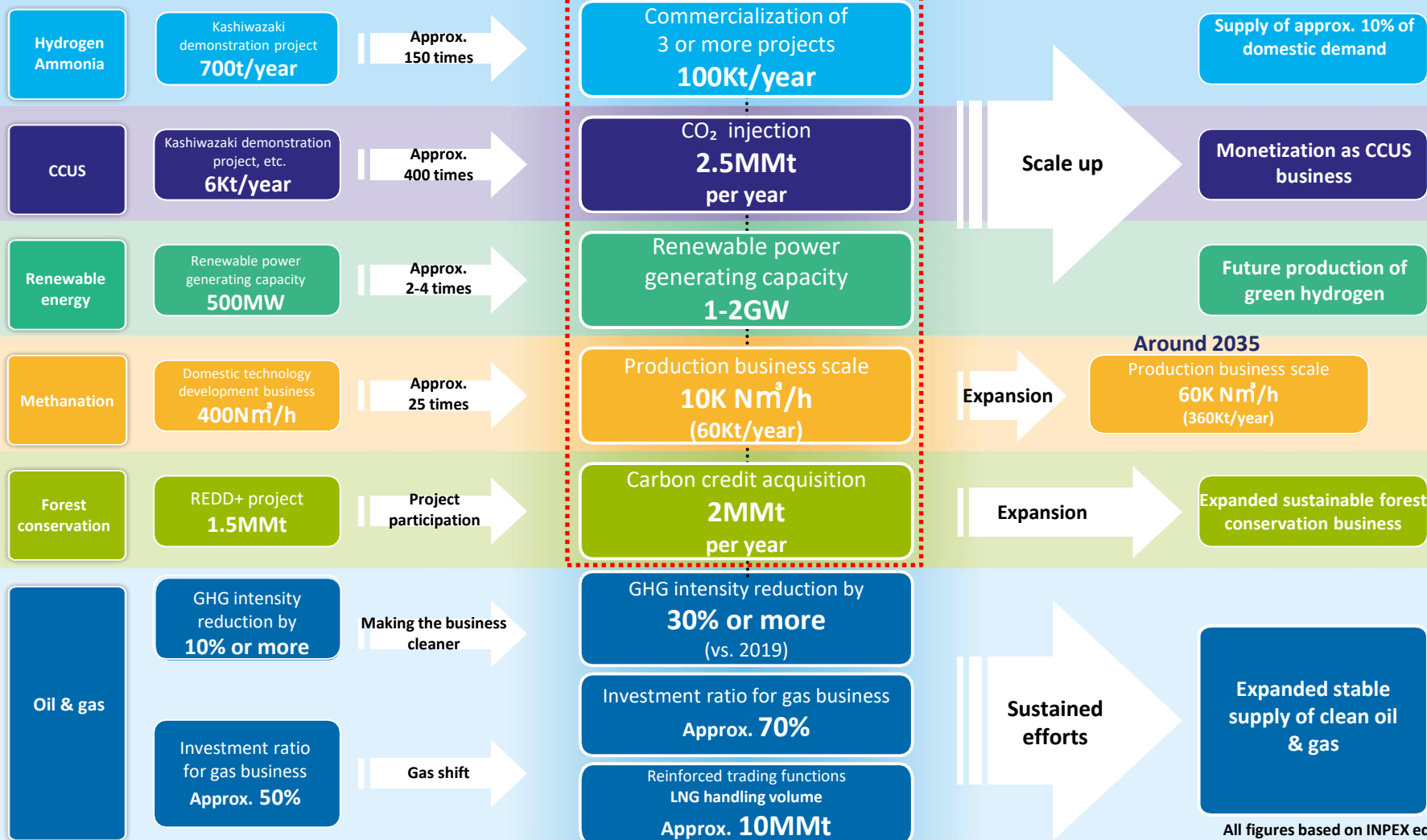
1 | Vision for around 2030

Invest up to about 1 trillion JPY in the 5 net zero businesses and aim for these businesses to generate about 10% of operating cash flow by 2030

Medium-term business plan period

Around 2030

2050



All figures based on INPEX equity portion

INPEX's current initiatives

- ▶ *Net carbon intensity*
 - *Our net carbon intensity (provisional figure) in 2022 was 28kg-CO₂e boe .^{*1}*
 - *Aim to reduce 10% (4.1kg/boe) or more over a 3-year period towards our 2030 target.^{*2}*

- ▶ *Scope 3*
 - *Reduce our Scope 3 emissions through marketing carbon-neutral LNG and gas to customers.*
 - *Complement initiatives towards net zero targets such as making the oil and natural gas business cleaner, implementing a natural gas shift and promoting CCUS, hydrogen and ammonia, renewable energy, carbon recycling, etc.*

- ▶ *Methane emissions intensity*
 - *Our methane emissions intensity (provisional figure) in 2022 was 0.06%. Aim to maintain the current low methane emissions intensity of approximately 0.1%.*

- ▶ *Eliminating routine flaring*
 - *At each project, accelerate efforts to make the business cleaner through continued flare reduction measures, etc.*

**1 barrels of oil equivalent*

**2 Reduction of 2019 net carbon intensity (41.1kg/boe) by over 30%*

INPEX's current initiatives

- ▶ *Promoting initiatives in line with TCFD recommendations*
 - *Implementing and regularly reviewing economic assessments on each of our projects using internal carbon pricing as a base case, set based on EU price of IEA STEPS (\$90/t-CO₂ in 2030, \$113 /t-CO₂ in 2050) or regulatory carbon price prediction.*
 - *Conducting financial assessments of our portfolio using the IEA WEO Sustainable Development Scenario (SDS)^{*1} as one of the major scenarios. We also use the Net Zero Emissions by 2050 Scenario (NZE)^{*2} as a reference.*
 - *Established an internal system to evaluate and manage climate-related risks and opportunities in line with TCFD recommendations.*
 - *Established an internal system to manage our efforts to achieve our climate change goals.*
 - *Established an internal system to address and manage voluntary carbon credits.*

- ▶ *Building an organizational framework and optimizing personnel allocation to develop and enhance clean energy technology*
 - *Established I-RHEX (INPEX Research Hub for Energy Transformation) to promote the development and enhancement of clean energy technology .*
 - *Built a framework to execute business operations more efficiently and flexibly by reinforcing organizational structure and personnel, including the establishment of the Hydrogen & CCUS Development Division.*

**1 Scenario consistent with the Paris Agreement's goals of keeping average global temperature rise to well below 2 degrees Celsius compared to pre-industrial levels and pursuing efforts to limit it to 1.5 degrees Celsius.*

**2 Scenario that assumes that the global energy sector will reach net zero in 2050.*

3-1 Develop a Hydrogen Business

INPEX's current initiatives

- ▶ *Integrated demonstration of hydrogen & ammonia production and usage in Kashiwazaki City, Niigata Prefecture, Japan*
 - *In October, 2022, took a final investment decision (FID) on drilling operations and the construction of facilities associated with a demonstration of a business model to produce carbon-free hydrogen & ammonia through a natural gas reforming process. Plan to construct a blue hydrogen & ammonia production plant and aim to start operation in 2025.*
- ▶ *Commercialization of blue hydrogen project in Niigata Prefecture, Japan*
 - *Based on the results of the above initiative, aim to construct a blue hydrogen production plant utilizing INPEX natural gas fields and existing infrastructure and produce hydrogen on a commercial scale by around 2030 (100-thousand-ton scale).*
- ▶ *Clean ammonia production in Abu Dhabi*
 - *Conducted a joint study with ADNOC, JERA and JOGMEC on exploring the commercial potential of a clean ammonia production business in the UAE.*
Based on the results of the joint study, Aiming to construct a clean ammonia plant and commence supply from the second half of the 2020s.
- ▶ *Clean hydrogen projects overseas (Australia, Abu Dhabi, Indonesia, etc.)*
 - *Promote business expansion through feasibility studies and collaboration, aiming at large-scale project development overseas. Now pursuing opportunities in the hydrogen production, liquefaction, offloading and shipping business.*
 - *In 2022, signed a Memorandum of Understanding with Australian energy provider AGL Energy to conduct a feasibility study on a green hydrogen production project in the state of South Australia and New South Wales. A study has been conducted on exporting hydrogen and methanation utilizing hydrogen.*



INPEX's current initiatives

- ▶ *CO₂EOR demonstration at Minami-aga (Niigata Prefecture, Japan)*
 - *In April 2021, commenced a joint study with JOGMEC for a CO₂ enhanced oil recovery pilot test, and commenced drilling in preparation for a pilot test in June 2022, completed in January 2023. Aiming to commence CO₂ injection tests by the end of 2023.*
- ▶ *CO₂EOR scale up in Abu Dhabi*
 - *Pursue technical evaluations to increase CCUS capacity of ADNOC Onshore CO₂EOR activities from the current 0.8 million tons per year with ADNOC.*
- ▶ *Promotion of CCS/CCUS business development in Japan and overseas*
 - *Conduct surveys of suitable CCS/CCUS locations and technical development in Japan and overseas. Make full use of knowledge, experience and assets in the oil and natural gas sector with the aim of commercializing the CCS/CCUS business.*
 - *In April 2022, signed a memorandum of understanding between PTTEP and JGC Holdings Corporation To explore CCS project.*
 - *Since 2022, have been participating in the CCS Long-Term Roadmap Study Group organized by the Ministry of Economy, Trade and Industry (METI) and involved in discussions to develop policies of the commercialization of CCS in Japan.*
 - *In January 2023, signed a memorandum of understanding between ITOCHU Corporation, Mitsubishi Heavy Industries, Ltd., and Taisei Corporation for a joint feasibility study on a large-scale and wide-area CCS value chain project using ship transportation.*

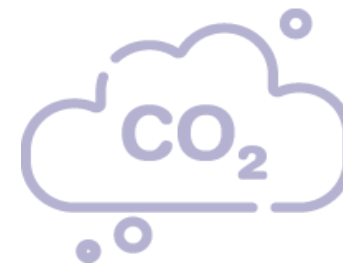


INPEX's current initiatives

- ▶ *CCS implementation at the Ichthys LNG Project (Australia)*
 - *Aiming to sequester CO₂ captured at the INPEX-operated Ichthys LNG plant in Darwin, Australia.*
 - *In August 2022, began joint research with JOGMEC for CCS business opportunity assessment at Australian LNG operation, and awarded a GHG assessment permit (G-7-AP) at offshore Northern Territory, Australia.*
 - *Introduce CCS to Ichthys in the late-2020s and begin injecting 2 million tons or more of CO₂ per year as a first step.*

- ▶ *Carbon Credit Development for CCUS*
 - *Participated in the development of the CCS+ Initiative* since September 2021 and joined as a Partner in March 2022.*

**Initiative which is developing a methodology for generating carbon credits from CCUS projects*



INPEX's current initiatives

▶ Wind power

- *In February 2022, acquired a 50% stake in the Luchterduinen offshore wind farm and a 15% stake in the Borssele III/IV offshore wind farm operating off the coast of the Netherlands. Both are currently in stable operation.*
- *In April 2022, Goto Floating Wind Farm project in Nagasaki, which INPEX joins, was awarded Japan's first public offering plan certification as an offshore wind power generation facility by the Ministry of Economy, Trade and Industry (METI) and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) of Japan. Construction work began in the same year. To pursue start-up of commercial operation in January 2024.*

▶ Geothermal

- *In December 2021, joined the Muara Laboh Geothermal Power Project in Indonesia, thereafter acquired additional shares (INPEX in essence holds approximately 30%), and considering further development.*
- *In October 2022, joined the Rantau Dedap Geothermal Power Project in Indonesia (INPEX in essence holds approximately 27.4%).*
- *In December 2022, joined the Rajabasa Geothermal Project in Indonesia (INPEX in essence holds approximately 31.45%).*
- *In June 2022, resolved to enter the construction phase of the Geothermal Power Project in the Oyasu area, Yuzawa City, Akita Prefecture, Japan. Conducting preparations toward commencement of operations in March 2027.*
- *Continuing geothermal surveys at Amemasudake (Hokkaido).*



3 3-4. Promote Carbon Recycling and Cultivate New Business Opportunities

INPEX's current initiatives

▶ Methanation

- *As a NEDO-sanctioned project, promoting technical development by constructing to launch a methane production capacity of 400 normal cubic meters per hour, and selling it through our gas pipeline. Transitioning to EPC(Engineering, Procurement, Design) work.*

▶ Methane pyrolysis

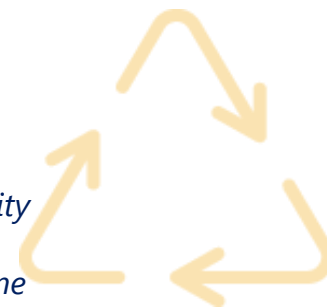
- *Conducting R&D studies for future commercialization.*

▶ Artificial photosynthesis

- *Participated in ARPChem (Japan Technological Research Association of Artificial Photosynthetic Chemical Process) since 2012. Have been participating in phase 2 since March 2022.*
- *In December 2022, the joint team of INPEX and the University of Tokyo, supported by ARPChem, won first place at international artificial photosynthesis competition (out of 22 teams).*

▶ Drones

- *In February 2021, made an investment in Terra Drone Corp and commenced joint studies on the INPEX-Terra Drone Intelligent Drone Plan.*
- *In 2022, conducted a drone flight demonstration test using LTE communications together with Mitsubishi Heavy Industries, Ltd., Mitsubishi Heavy Industries Machinery Technology Corporation, and INPEX Pipeline Co., Ltd., in Kashiwazaki City in Niigata Prefecture, Japan.*
- *Studying implementation of inspection by drones of plant and long-distance pipeline networks.*



INPEX's current initiatives

- ▶ *Business participation in forest conservation projects*
 - *In February 2021, entered into an agreement with conservation firm infiniteEARTH to acquire 5 million tons worth of carbon credits over 5 years by supporting the project. Currently preparing the construction of 3 Orangutan Release Camps.*
 - *By around 2030, stably secure about 2 million tons of forestation credits per year from leading forest conservation projects, such as the Rimba Raya REDD+ Project.*
 - *Aim to participate in projects in addition to acquiring credits from forest conservation projects by utilizing INPEX's track record in carbon credit acquisition through supporting the Rimba Raya REDD+ Project and afforestation and savanna fire management at Ichthys.*
In March 2022, commenced collaboration with ANZ and Qantas to evaluate a carbon farming and renewable biofuels project.*

**The carbon farming in this project provides an opportunity to support carbon capture from the atmosphere through reforestation and improving of soil, thus reducing GHG emissions.*



INPEX's current initiatives

- ▶ *Cleaner upstream business*
 - *Ichthys: Introduce measures to minimize flaring during production and fuel gas consumption and promote low-carbon operations.*
 - *Abu Dhabi: In addition to partially-started clean power utilization at operation of onshore facilities, make operations cleaner in cooperation with ADNOC by supplying offshore facilities with clean power from onshore, etc.*
 - *Tangguh : Plan to reach FID on CCUS in 2024 and commence injection in 2026.*
 - *Norway: Plan to supply clean power to offshore production facilities of Snorre project in the mid 2023 from floating offshore wind power generation facilities such as Hywind Tampen, etc.*
 - *Kashagan: Evaluate and implement GHG reduction based on GHG & Energy Management Strategy.*
 - *ACG: Evaluate and implement GHG reduction based on ACG Life of Field Strategy.*
 - *Japan: Conducted direct measurement of methane leaks with JOGMEC at INPEX operated Naoetsu LNG Terminal as well as Koshijihara plant.*
- ▶ *Implementation of a shift to natural gas*
 - *Carry out exploration and M&A activities in Vietnam, Malaysia, etc. to acquire additional natural gas resources in Asia.*
 - *Carry out gas exploration, expand gas assets in Europe.*

INPEX

Revision History

Corporate Position on Climate Change	INPEX's current initiatives
December 2015 Published	December 2015 Published
July 2018 Updated	February 2017 Updated
January 2021 Updated	July 2018 Updated
March 2022 Updated	February 2020 Updated
	February 2021 Updated
	March 2022 Updated
	February 2023 Updated

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