



Idemitsu Kosan Green/Transition Bond Framework

1. Introduction

Idemitsu Kosan Co.,Ltd. (hereinafter, "Idemitsu" or "Idemitsu Group") has established the Green/Transition Bond Framework (hereinafter, "this Framework") as follows with the aim of accelerating its efforts to become carbon neutrality by 2050. Idemitsu has obtained a second party opinion from DNV BUSINESS ASSURANCE JAPAN K.K. (hereinafter, "DNV"), an independent external reviewer, that this Framework is aligned with Green Bond Principles 2021 (ICMA), and Green Bond Guidelines 2020 (Ministry of the Environment, Japan), Climate Transition Finance Handbook 2020 (ICMA), and Basic Guidelines on Climate Transition Finance (May 2021) (Financial Services Agency, Japan; Ministry of Economy, Trade and Industry, Japan; and Ministry of the Environment, Japan).

Idemitsu will issue Green/Transition Bonds based on this Framework.

1.1 About Idemitsu

1.1.1 Overview of the Idemitsu Group

The Idemitsu Group was established in 2019 through the integration of Idemitsu Kosan and Showa Shell Sekiyu, and has been committed to the stable supply of energy for more than 100 years. The Group consists of 155 subsidiaries and 61 associated companies, and operates globally in five business segments: Petroleum, Basic Chemicals, Functional Materials, Power & Renewable Energy, and Resources (as of March 31, 2021).

1.1.2 The Origin of Management

The Origin of Management



Ningen-Soncho
Written by Sazo Idemitsu

Ningen-Soncho means having respect for human beings. The Origin of Management are the words of the founder just as he wrote them. We intend to communicate to the world the importance of respecting human beings, a key tenet of our history for over a century, and unassailable ideals we continue to pass down. We have reaffirmed these as our steadfast principles.

1.1.3 Management Philosophy

Management Philosophy

Truly inspired

How often do we consider the countries and communities we touch,
and how much empathy do we have for the people living there?
Are we contemplating what's best for them and then doing our utmost to act in their interests?
Each day, we must reflect on our actions;
we must strive to do better not only for ourselves, but also for others.
When we come together and our efforts are united, we make the impossible possible.

With integrity, solidarity, and determination, we will overcome any challenge we face.

Idemitsu's Management Philosophy is the reaffirmation of "people-centered management" beliefs and ideals, which we have carefully maintained since our founding. It is the guidance to "keep focused on what matters" and "stay committed to providing value to society" for all Group members, simple phrases that convey the essence of Idemitsu.

1.2 Idemitsu Group's Sustainability

1.2.1 Idemitsu Group Sustainability Policy

As a reliable partner, the Idemitsu Group fulfills the following three responsibilities through its business activities: "Protect the Environment and Lifestyles," "Support Regional Communities," and "Provide for Society with Technological Capabilities." The Idemitsu Group discloses information appropriately, engages in earnest dialogue and collaboration with stakeholders, and aims to enhance its corporate value while remaining a sustainable company that observes the following priority policies.

Environment

- While fulfilling the Idemitsu Group's crucial social mission of maintaining the stable supply of energy and materials, we continue striving to realize carbon neutrality, not only within the Idemitsu Group but also throughout society
- We promote the development of innovative technologies, pursue the advance mitigation of environmental risks in our business activities, and contribute to the conservation of the natural environment as well as the realization of a circular economy.

Society

- The Idemitsu Group places the highest priority on respect for human rights in all its decisions and actions, and strives in its business activities to prevent and ameliorate adverse impacts on human rights.
- By implementing diversity and inclusion measures, we leverage our diverse capabilities to grow as a company and contribute to the realization of inclusive societies.

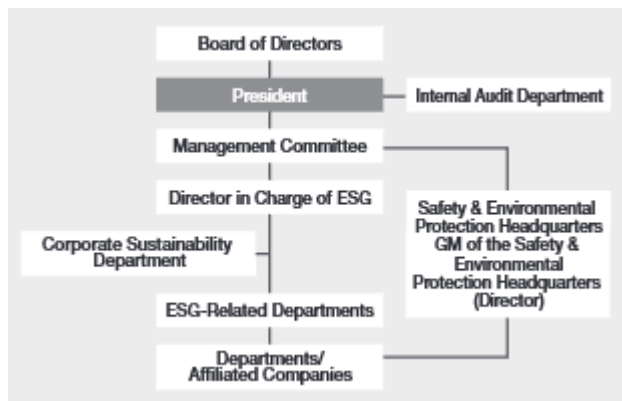
- Working together with our partners, we contribute to the realization of a sustainable society throughout the supply chain.
- We make maximum use of our resources to co-create solutions that meet the needs of regional communities.

Governance

- The Idemitsu Group seeks to enhance deliberations by the Board of Directors and continues to improve its effectiveness.
- We comply with international norms concerning the environment, human rights, labor, safety, and anticorruption.
- We conduct fair and honest management, identify material risks, and implement appropriate risk management measures.

1.2.2 Sustainability Promotion Structure

To conduct management from the perspective of sustainability, we established the Corporate Sustainability Department to coordinate and manage ESG issues across departments, including climate change and human rights. Each ESG issue is overseen by a designated department, with its progress reported to the Management Committee by the director in charge of ESG. The Management Committee discusses important policies and measures related to sustainability, reporting the details to the President and, when needed, the Board of Directors. Under this management structure, we are committed to solving environmental and social issues and strive to achieve sustainable growth.



1.3 Priority Topics (Materiality) and Identification Process

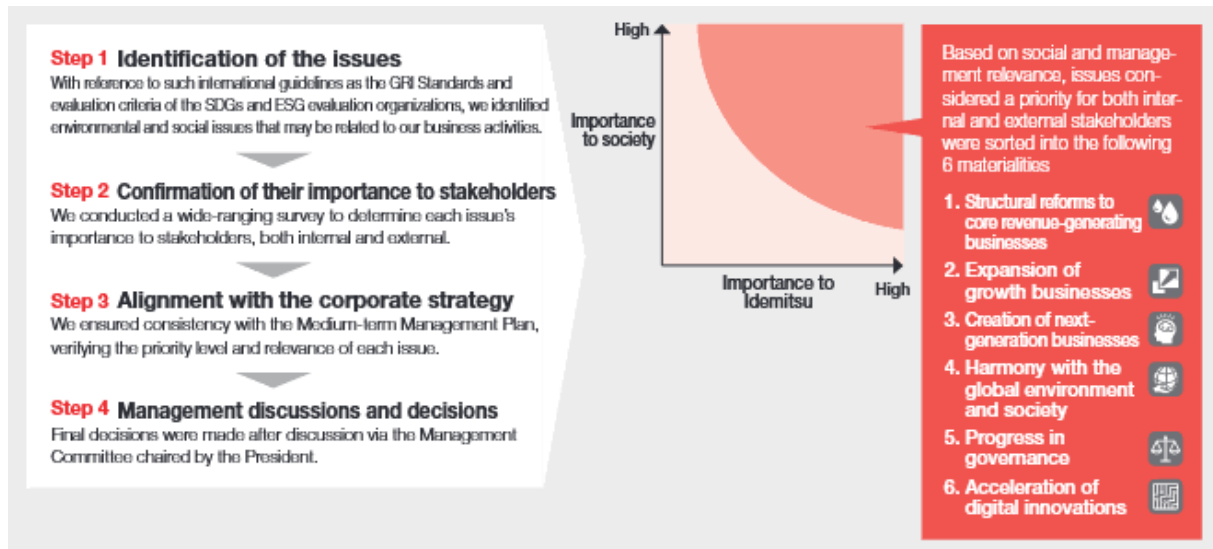
1.3.1 Priority Topics (Materiality)

The Group values contributing to society through business. It is our mission to continue supplying the energy underpinning people's lifelines while contributing to the development of society. Recently, the environmental burden of energy use has become a major social issue, and the Group recognizes maintaining harmony with the global environment and society as an important and urgent theme. To this end, the Group identified priority topics (materiality) that it should prioritize during the period of the Medium-term Management Plan. Through concerted effort, the Group will advance toward its aim of achieving the sustainable development of the world's environment and society as well as the Group.

Materiality	Major initiatives	Main relevant SDGs
<p>Structural reforms to core revenue-generating businesses</p> <p>Build a strong supply chain and further strengthen stability and competitiveness through collaboration with partners in the core revenue-generating businesses centered on petroleum products and chemicals.</p>	<ul style="list-style-type: none"> ■ Pursuing profits in the petroleum business (maximizing integration synergies, making refineries more reliable) ■ Enabling Nghi Son Refinery to contribute to profits ■ Utilizing the Pacific Rim supply chain to capture growing demand in Asia ■ Gas development in Southeast Asia 	
<p>Expansion of growth businesses</p> <p>Expand business scale and scope by strengthening R&D in growth fields such as functional materials and renewable energy, which are becoming increasingly necessary in the world.</p>	<ul style="list-style-type: none"> ■ Expansion of business scale and domains (M&As on a scale of ¥100 billion during the Medium-term Management Plan period) ■ Increasing the share of functional materials business to 30% by 2030 ■ Increasing total power generated from renewable energy overseas to 5GW by 2030 (of which, 4GW is renewable energy) ■ Transformation of solar-power business ■ Black pellet development (biomass fuel) ■ Strengthening the development of functional materials utilizing open innovation 	
<p>Creation of next-generation businesses</p> <p>Accelerate technological innovation and innovation beyond organizational frameworks to create new businesses with an eye to the future.</p>	<ul style="list-style-type: none"> ■ Creating new businesses with an eye on social changes, diversifying customer needs, and lessening environmental impact ■ Development of next-generation service station business ■ Distributed energy business ■ Circular business 	
<p>Harmony with the global environment and society</p> <p>Promote measures to realize a low-carbon and circular economy in light of climate change risks, and promote diversity and inclusion in partnership with business partners, communities, and employees.</p>	<ul style="list-style-type: none"> ■ Efforts to reduce GHGs (2030: -4 million t-CO₂ compared to 2017) ■ Contributing to the areas where we operate business ■ Implementing diversity and inclusion initiatives ■ Making work more rewarding for employees ■ SDG educational activities 	
<p>Progress in governance</p> <p>Strengthen governance functions to maintain the trust of shareholders and all other stakeholders.</p>	<ul style="list-style-type: none"> ■ Enhancing the roles and functions of the Board of Directors 	
<p>Acceleration of digital innovations</p> <p>Capitalize on evolving digital technologies to transform existing business processes and management in response to the business environment and customer needs.</p>	<ul style="list-style-type: none"> ■ Utilizing digital technologies to create new value 	

1.3.2 Identification Process

To ensure we are able to continue working with our diverse stakeholders to generate new value as an energy co-creation company, we have identified six materialities, taking into careful consideration our long-term priorities as well as environmental and social issues. These materialities are closely linked to company-wide and departmental strategies as well as the materialities laid out in the materialities Management Plan.



1.4 Environmental Policy

The Idemitsu Group works to reduce the environmental impact of its business activities through more efficient energy use and other measures in order to contribute to the creation of a sustainable society with harmonious coexistence between the economy and environment. We aim to protect the global environment by appropriately allocating and utilizing our resources and actively promoting advanced initiatives to solve environmental problems such as global warming. To achieve this aim, we have established a policy regarding environmental conservation that positions global and regional environmental conservation as an important value in all our business activities.

Environmental Protection Policy

1. Make an effort to prevent leaks and contamination and contribute to environmental protection.
2. Actively contribute to preventing global warming and make an effort to reduce greenhouse gases emitted through our business activities.
3. Effectively use resources in all our business activities.
4. Promote green procurement when purchasing material, construction work, services, etc.
5. Be aware of the importance of biodiversity and actively contribute to its maintenance.
6. Work to develop and diffuse technologies and products that create a better environment.
7. Set environmental objectives based on the annual basic policies, and gather power from within and outside the organization to achieve those objectives.
8. Continually improve the Environmental Management System to enhance environmental performance.
9. Actively disclose environmental information and promote communication with parties outside the company to ensure the reliability of our company and improve corporate value.

1.5 Initiatives for realizing a sustainable society throughout the supply chain

1.5.1 Sustainable Procurement Policy

Idemitsu aims for the sustainable development of society and the company by conducting fair and equitable procurement based on proper procurement ethics, contributing to the improvement of business competitiveness, and conducting honest management for all stakeholders. To this end, we established the Basic Procurement Policy and internal rules dubbed General Rules Concerning Procurement Activities. Through the policy and rules, we aim to contribute to the realization of a sustainable society throughout the supply chain. In particular, we have established criteria for selecting suppliers when purchasing or borrowing the materials, construction work, and services necessary for our business operations, and we ensure that suppliers understand the policy.

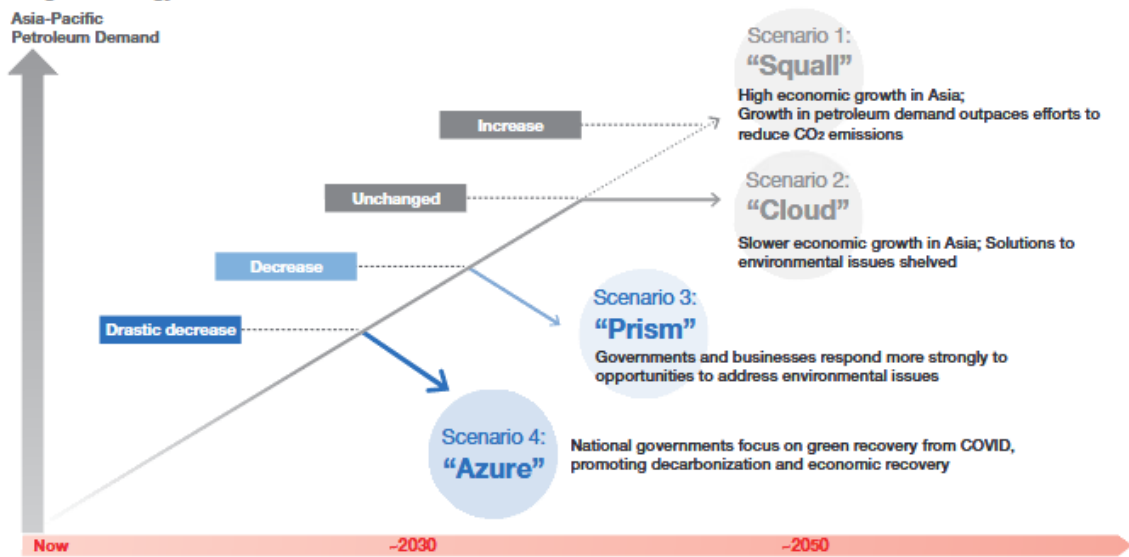
1.5.2 About Our Sustainable Procurement Guidelines

The business environment is diversifying, and in order to achieve sustainable development, it is expected that every company will actively strive to fulfill its social responsibilities not only for itself but for the entire supply chain. The Basic Procurement Policy is based on the Management Philosophy and Action Mindset and we will work with business partners to co-create a sustainable society throughout the entire supply chain through procurement activities grounded in unwavering ethics. In order to fulfill this responsibility, we formulated our own Sustainable Procurement Guidelines based on ISO 26000 (Guidance on Social Responsibility), ISO 20400 (Guide to Sustainable Procurement), the Sustainable Development Goals (SDGs), and the 10 principles of the United Nations Global Compact. Our guidelines cover seven fields: 1) organizational governance, 2) human rights, 3) labor practices, 4) environment, 5) fair business practices, 6) consumer issues, and 7) social contribution. We exchange information with business partners regarding the status of our sustainability-related efforts as we strive to mutually attain a higher level.

1.6 Long-term Business Environment Assumptions toward 2050

In 2021, we revised our mid-term management plan. When formulating the previous 2019 Medium-term Management Plan, we used the “Prism” scenario for our assumptions. However, the “Prism” scenario does not allow for the achievement of the 2°C goal of the Paris Agreement. Given that decarbonization trends are currently gaining significant steam around the world, we are now proceeding with a strong recognition of the possibility of the “Azure” scenario, which does allow for the achievement of said goal. Under the “Azure” scenario, various countries cooperate to take action and begin shifting the structure of their energy systems to contain the global temperature rise to below 2°C. In this scenario, for example, assuming that fossil fuel use within the Asian Pacific region peaks in 2025, Japan’s domestic fossil fuel demand compared to 2019 can be expected to decrease 30% by 2030, 60% by 2040, and 80% by 2050.

Long-term energy business environment scenarios toward 2050

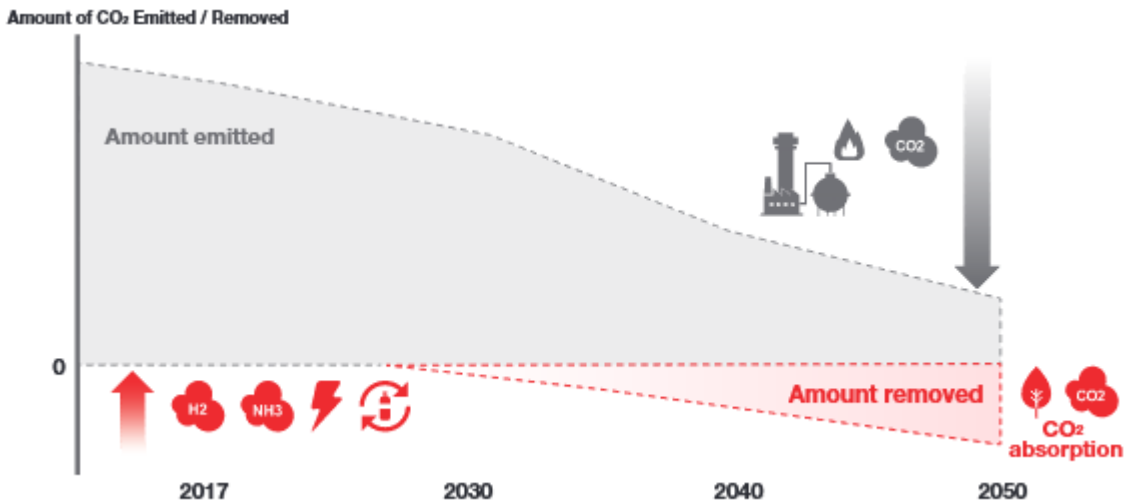


The projected business environment in scenario 4 is unique to Idemitsu. Other organizations' projections that are similar to each scenario are as follows.

- "Squall": International Energy Agency (IEA), Current Policy Scenario
- "Cloud": IEA, Stated Policy Scenario
- "Prism": IEA, lies between the Stated Policy Scenario and Sustainable Development Scenario
- "Azure": IEA, Sustainable Development Scenario

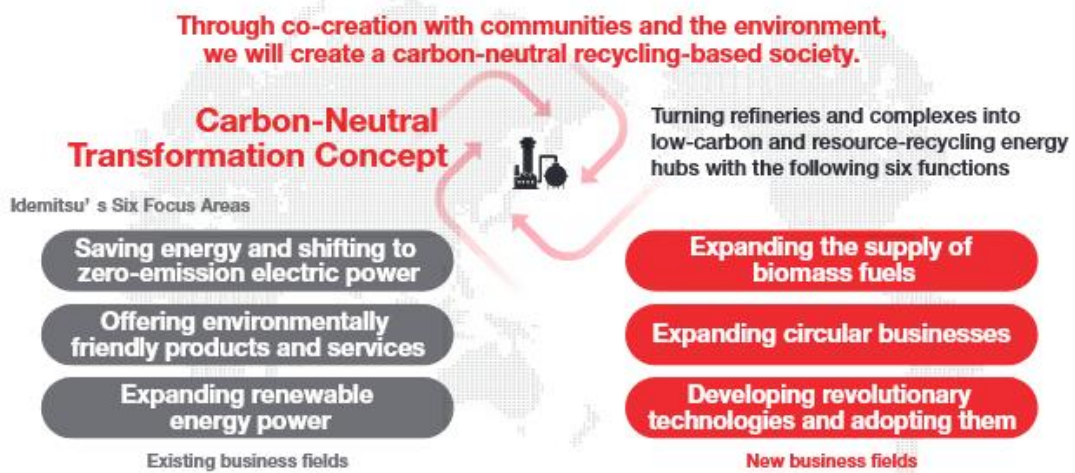
1.7 Initiatives for Carbon Neutrality

Idemitsu aims to achieve carbon neutrality (net zero CO₂ emissions) for emissions from its own operations (Scope 1+2) by 2050. In addition, we have the target aiming to reduce CO₂ four million tons (Scope 1+2) in the FY2030 Management Targets.



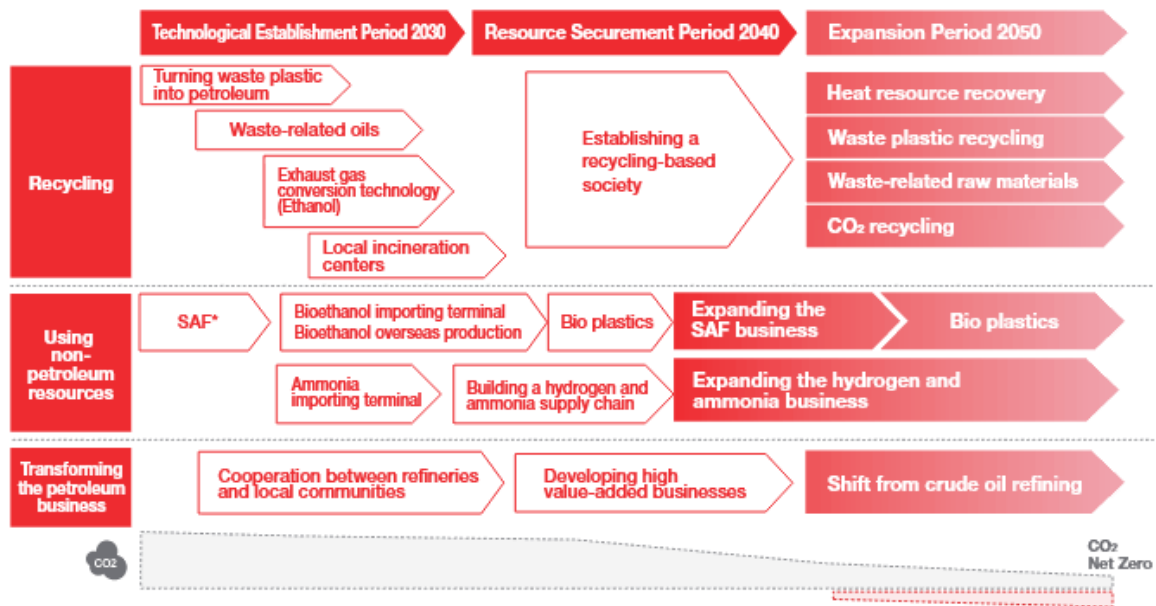
Initiatives Aimed at Realizing a Carbon-Neutral Society

Aiming to realize a carbon-neutral society, we supply the energy and materials needed by customers and society from the two perspectives of strengthening and expanding existing business fields and swiftly establishing new business fields. At the same time, we are taking action to realize a carbon-neutral transformation concept through the addition of the following six functions to our refineries and complexes and by positioning them as new bases operating as low-carbon and resource-recycling energy hubs.



Carbon-Neutral Transition Plan

To realize carbon neutrality, Idemitsu has created the following transition plans for recycling, the use of non-petroleum resources, and the transformation of the petroleum business. Regarding these initiatives, we collaborate with communities and other companies to roll out activities while receiving support from experts and national interests at home and overseas.



*SAF: Sustainable Aviation Fuel

1.8 Corporate vision for 2030

Idemitsu has thus outlined its 2030 vision of being “Your Reliable Partner for a Brighter Future.” We will fulfill the following three responsibilities in the business domains of energy/material transition to a carbon neutral/circulatory society, next generation mobility & community for an aging society, and advanced materials to make it possible to overcome such challenges.

We believe it is our responsibility to contribute to social challenges in addition to providing stable energy supply.

Our corporate vision for 2030 is to become
Your Reliable Partner for a Brighter Future

and we will fulfill three responsibilities through our business activities:

- Responsibility to protect the environment and lifestyles:**
Energy/material transition to a carbon neutral/circulatory society
- Responsibility to support regional communities:**
Next generation mobility & community for an aging society
- Responsibility to provide for society with technological capabilities:**
Advanced materials to make it possible to overcome such challenges

We will fulfill the three responsibilities through our business activities.

Business strategy

Petroleum Basic Chemicals

- Turn apollostation into a “Smart Yorozyua (Smart One-Stop Shop)”
- Review refinery/complex structure and turn it into a “CNX* Center” in the area
- Reduce fixed costs ahead of decrease in demand
- Deepen integration of refining and petrochemical production
- Enabling profit contribution from Nghi Son Refinery

*CNX: Carbon Neutral Transformation

Functional Materials

- Commercialize lithium solid-state electrolytes
- Accelerate development of advanced materials (e.g. electronic materials, performance chemicals, lubricants, grease, functional paving materials, agri-bio products)

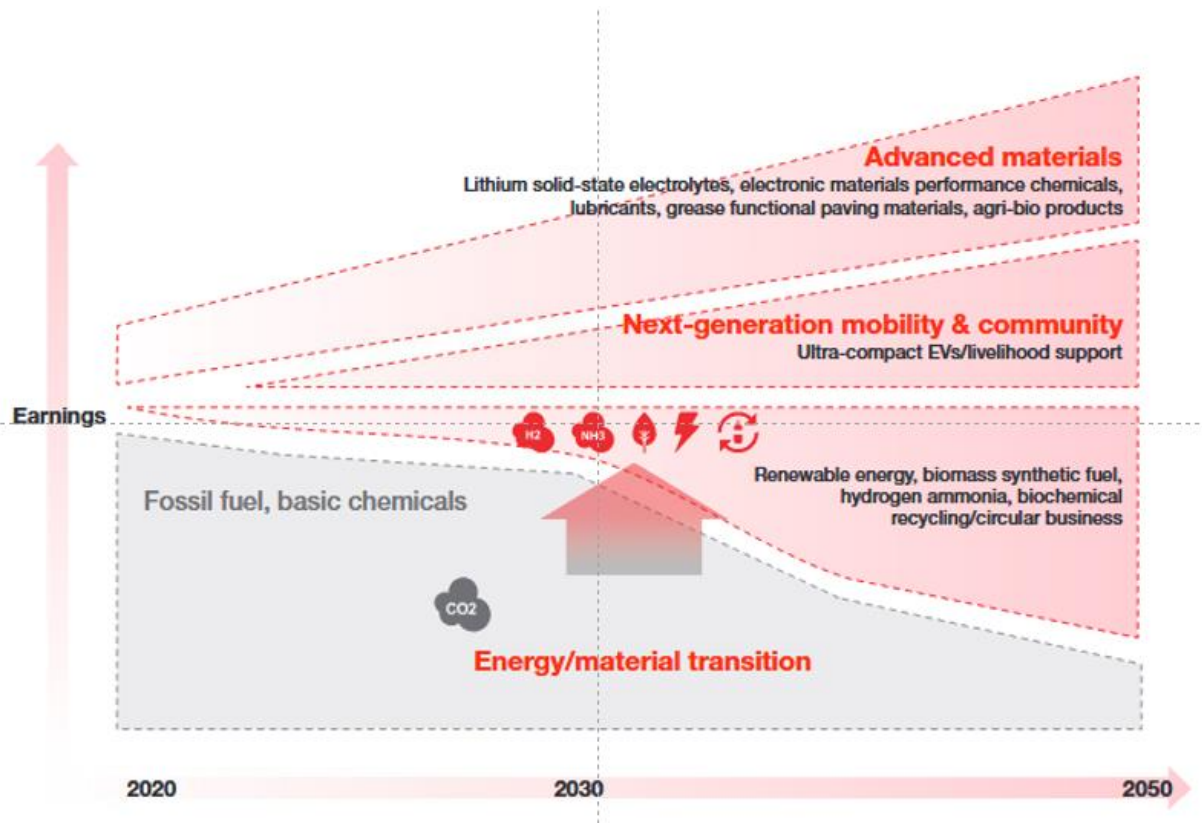
Power and Renewable Energy

- Expand development of renewable energy sources (solar/wind/biomass)
- Develop distributed energy business centered around renewable energy
- Convert Solar Frontier's module sales business into a system integrator business

Resource

- Oil E&P: Shift to Southeast Asian gas development, CCS initiatives using developed technologies
- Coal: Reduce mine production, shift to low-carbon solution business (black pellets, ammonia)
- Expand domestic and overseas geothermal business

Portfolio transformation for the future



1.9 CO₂ Reduction Targets (Scopes 1 and 2) and Monitoring Indicators (Scopes 1, 2 and 3)

We recognize that an environmental contribution consisting only of a reduction in our CO₂ emissions is not enough to secure corporate sustainability. Along with these reduction efforts, we need to contribute to society by providing low-carbon energy with a view to transitioning to a low-carbon society in the future. Moreover, we also aim to contribute economically by securing robust profits and enhancing corporate resilience even as we shift our business portfolio. We consider all of these endeavors to be matters of equal importance. Based on the concepts discussed above, the Idemitsu Group has established the following three indices to systematically assess and manage its initiatives to reduce CO₂ emissions.

The boundaries for each indicator are based on the "main company + consolidated subsidiaries," and for indicator 1 (Target value), "Group affiliates" are also included.

- | | |
|--------------------|---|
| Indicator 1 | Target value: Contributing to the Environment
Reduction of CO ₂ emissions in our own operations (Scope 1+2) |
| Indicator 2 | Monitoring indicator: Contributing to Society
Reduction of CO ₂ emissions per unit of energy supplied, including Scope 3 |
| Indicator 3 | Monitoring indicator: Contributing to the Economy
Revenue level per unit of CO ₂ emitted, including Scope 3 |

Target value for reduction in CO₂ emissions (Scopes 1 and 2)

Indicator 1

By 2050, we aim to achieve carbon neutrality, or net zero emissions, in terms of the volume of CO₂ emissions attributable to our operations (Scopes 1 and 2). As an interim target for our path toward this goal, we have reset our target for the volume CO₂ emissions to be reduced by 2030, expanding the scope of emitters to encompass the entire Group and raising the reduction target to 4 million t-CO₂. As the handling of fossil fuels constitutes our main business, we recognize that reducing CO₂ emissions is a matter of utmost importance. Therefore, we will assiduously work to achieve the aforementioned targets.

2030 Target: Cut levels by 4 million ton-CO₂ (compared to 2017 levels)

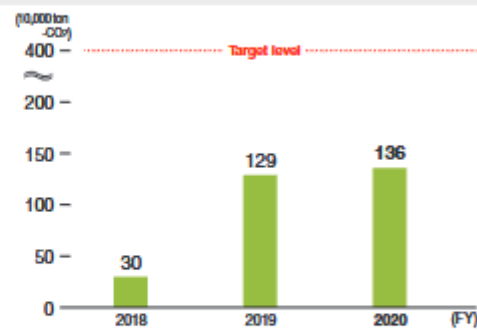
Scope: Idemitsu and its consolidated subsidiaries as well as Group affiliates

Calculation formula = CO₂ emissions in target year (Scope 1 + 2) - CO₂ emissions in base year (Scope 1 + 2)

FY2020 Results: down 1.36 million ton-CO₂ (compared to 2017 levels)

In FY2020, energy conservation activities at refineries and complexes helped reduce CO₂ emissions by 300,000 tons, while a slow-down in refinery operations, which reflected lower demand and decreased in planned supply, resulted in a reduction of CO₂ emissions totaling 1,060,000 tons.

■ Volume of reduction in CO₂ emissions (Scopes 1 and 2)



Monitoring Indicator (Scopes 1, 2 and 3)

Indicator 2

Low carbon level of supplied energy

(Indicator of the extent to which an energy company can reduce the "CO₂ emissions per unit of energy" supplied to society)

2050 Indicator Level: down 30% (compared to 2017 levels)

Calculation formula = $\frac{\text{CO}_2 \text{ emissions (Scope 1 + 2 + 3)} - \text{CO}_2 \text{ avoided emission}^*}{\text{Amount of energy supplied to society}}$

FY2020 Results: up 0.2% (compared to 2017 levels)

In FY2020, this monitoring indicator was up 0.2% from 2017 levels due to changes in the energy mix.

*CO₂ reduction contribution throughout the entire value chain

(We intend to revise this target from time to time in light of social trends.)

Indicator 3

Degree of carbon exit from corporate earnings

(Indicator of how the "Revenue level per unit of CO₂" emitted by the Company as a whole is being raised)

Calculation formula = $\frac{\text{Revenue}}{\text{CO}_2 \text{ emissions (Scope 1 + 2 + 3)} - \text{CO}_2 \text{ avoided emissions}^*}$

We have not currently established a target for this indicator and use it for internal purposes only.

*CO₂ reduction contribution throughout the entire value chain

Note: In the above formulas, Scope 3 emissions refer to those classified as the "Category 11: Use of Sold Products."

(※) Reduction contributions

When Idemitsu introduces a new product or service to society that contributes to GHG reduction (i.e., reduces fossil fuel consumption), the amount of reduction will be recorded separately by the fossil fuel supplier of the user of the product or service as (a) a reduction in Idemitsu's Scope 3 emissions in the case of Idemitsu, or (b) an increase in the contribution to the reduction of other companies' emissions (Reduction contributions) in the case of other companies. Since both of them are equivalent in terms of contribution to GHG reduction on a global scale, we use the concept of contribution to reduction in addition to Scope 3 emissions in the calculation of Indicators 2 and 3.

Reference: Green Value Chain Platform

https://www.env.go.jp/earth/ondanka/supply_chain/gvc/files/SC_syousai_Option1_20210727.pdf

Reducing CO₂ Emissions Throughout Entire Value Chains

We are committed to reducing CO₂ emissions globally across value chains. We will promote the reduction of CO₂ emissions through our business activities in the following seven areas.

- (1) Reduction of CO₂ emissions throughout the value chain
- (2) Promotion of energy conservation and zero-emission electric power consumption
- (3) Provision of environmentally friendly products and services
- (4) Expansion of renewable energy power generation
- (5) Expansion of biomass fuel supply
- (6) Collaboration with other companies to expand renewable energy
- (7) Development and social implementation of innovative technologies

As a supplier of energy and materials, we believe it is important to reduce CO₂ emissions throughout the value chain while fulfilling our social mission of providing a stable supply of energy and materials by shifting from the current crude oil-based value chain to a value chain that originates from lower-carbon raw materials (biomass, CO₂-free ammonia/hydrogen, etc.).

1.10 Participation in External initiatives

- Efforts to achieve the SDGs (Sustainable Development Goals)
By raising awareness of social issues among all our employees through SDG-related efforts, we will enhance awareness of the linkage between business activities and social issues and promote the SDGs through internal communication to ensure that the key points of the SDGs are reflected in future corporate strategy and materiality. We will conduct educational activities so that our employees become fully aware that social issues are also their issues and take the initiative in solving them.
- Signing of the United Nations Global Compact and Accompanying Initiatives
In July 2019, we announced our support for the 10 principles of the United Nations Global Compact (UNGC) on human rights, labor, the environment, and anticorruption.
- Climate-related Financial Disclosures (TCFD)
We disclose information in accordance with TCFD recommendations. Using our robust information disclosure framework, we will proactively disclose information to stakeholders, accurately identifying risks and opportunities arising from climate change in connection with our business.
- Participation in "Challenge Zero", Keidanren initiative
We are a participant in "Challenge Zero," an initiative sponsored by the Keidanren (Japan Business Federation) in collaboration with the Japanese government, with the aim of contributing to the realization of a decarbonized society, the long-term goal defined by the Paris Agreement—an international framework for climate change countermeasures. To this end, participants in "Challenge Zero" are acting as strong advocates of decarbonization efforts at home and abroad, as well as encouraging other businesses and organizations to take action and tackle the challenge of achieving innovation.
- Cooperation in the CCS demonstration project
We have been cooperating in a CCS demonstration project run by Japan CCS Co., Ltd. The project is being executed in Tomakomai, Hokkaido Prefecture and is commissioned by the

Ministry of Economy, Trade and Industry (METI) and New Energy and Industrial Technology Development Organization (NEDO). In this case, CCS refers to a technology that absorbs CO₂ from gaseous power plant emissions before it can be released into the atmosphere, pumping it deep underground to sequester it. Since April 2016, our role in the project has been to supply the gas containing CO₂ from the Hokkaido Refinery for use in the demonstration project. As of November 22, 2019, the project achieved a cumulative total of 300,000 tons of CO₂ sequestration, meeting the initial target. Having ceased sequestration, the project is currently in the monitoring phase to confirm whether there are any leaks or other abnormalities.

- Participation in the Working Group on the Roadmap for Carbon Recycling Technology
We participated in the Working Group on the Roadmap for Carbon Recycling Technologies established by the METI. The Working Group was established to promote an effective and rapid development of carbon recycling technologies. The roadmap was compiled in June 2019.

1.11 Rationale for Green/Transition Bonds Issuance

Idemitsu believes that our transition efforts are in line with the Japanese government's 2050 carbon neutrality declaration, the Basic Energy Plan, and "Roadmap for Transition Finance in the Oil Sector (METI)", "Technology Roadmap for "Transition Finance" in Chemical Sector (METI)" and "Transition Roadmap for the Electricity Sector (METI).

We recognize our responsibility to contribute to the resolution of social issues as well as the stable supply of energy and simultaneously believe that the funds raised through the issuance of transition bonds will be used to carry out various projects to realize a carbon-neutral society and will provide us opportunities to communicate our efforts to our stakeholders.

We plan to revise our long-term strategies, such as Long-term energy business environment scenario and medium-term management plan, in light of changes in policies and other preconditions.

<Consistency with the four elements of transitions>

Disclosure Elements	Sections
1. Issuer's climate transition strategy and governance	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11 2.1, 2.3
2. Business model environmental materiality	1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 1.11 2.1, 2.2, 2.3
3. Climate transition strategy to be science-based including targets and pathways	1.6, 1.7, 1.8, 1.9, 1.11 2.4
4. Implementation transparency	1.2, 1.3, 1.5, 1.6, 1.7, 1.8, 1.9, 1.11 2.1, 2.2, 2.3, 2.4, 2.5

2. Green/Transition Bond Framework

2.1 Use of Proceeds

2.1.1 Eligibility Criteria

Idemitsu will use the proceeds of the Green/Transition Bonds to finance and refinance new and existing expenditures relating to Eligible Projects falling within the following Eligibility Criteria. In the case of existing expenditures, allocation is limited to expenditures made within past three years from the issuance of the Green/Transition Bonds. Under this framework, Idemitsu can issue below types of bonds.

- ✧ Green Bonds – for which the funds raised are exclusively allocated to Green/Transition Project categories;
- ✧ Transition Bonds – for which the funds raised are exclusively allocated to Green/Transition Project categories and/or Transition Project categories;

Green/Transition Projects

Project Category	Eligibility Criteria	SDGs
Power and Renewable Energy GBP: Renewable energy (Environmental objectives: Climate change mitigation)	Projects related to the development, construction, operation, renovation and other related expenditures for renewable energy (biomass, geothermal, solar and wind) power generation facilities	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
Distributed energy GBP: Renewable energy, Energy efficiency (Environmental objectives: Climate change mitigation)	Projects related to the development, construction, operation, renovation, and other related expenditures of facilities for distributed energy	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
Development of functional material products GBP: Clean transportation (Environmental objectives: Climate change mitigation)	Projects related to lithium solid electrolyte development, production, R&D and other related expenditures (electric vehicles (EV))	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
Turning into "Carbon Neutral Transformation Centers" GBP: Eco-efficient and/or circular economy adapted products,	Projects on the construction of a waste plastic recycling chain (manufacturing of chemicals)	8. DECENT WORK AND ECONOMIC GROWTH 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 12. INDUSTRY, INNOVATION AND INFRASTRUCTURE

production technologies and processes (Environmental objectives : Climate change mitigation)	Projects related to the development and promotion of circular business	8.DECENT WORK AND ECONOMIC GROWTH 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 12. INDUSTRY, INNOVATION AND INFRASTRUCTURE
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Transition Projects

Project Category	Eligibility Criteria	SDGs
Smart One-Stop Shops	Projects on manufacturing and sales of ultra-compact EVs	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
	Projects related to MaaS services	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE
	Projects related to service station logistics bases, unmanned delivery, drone pesticide spraying, day services, etc.	3. Good health and well-being 7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 11. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
Turning into "Carbon Neutral Transformation Centers"	Projects on SAF (Sustainable Aviation Fuel) production and supply	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
	Projects on building a CO ₂ -free ammonia supply chain for power generation and industrial sectors	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
Low-carbon solutions for replacing coal-fired power generation	Projects on production, sales, and R&D of black pellets (with an eye on increasing the ratio of mixed firing and dedicated firing)	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION

Energy saving	Projects on Energy Saving Investment in Refineries and Complexes	7. AFFORDABLE AND CLEAN ENERGY 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE 13. CLIMATE ACTION
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2.1.2 Exclusion Criteria

The proceeds of the Green/Transition Bonds will not be allocated to projects related to:

- Unfair transactions that do not comply with the laws and regulations of the country, such as bribery, corruption, blackmail, embezzlement, etc
- Transactions that can cause social problems relate to human rights and the environment

2.2 Process for Project Evaluation and Selection

Eligible projects are selected by our Finance and Accounting Department and decided by the General Manager of the Finance and Accounting Department. The Company's Investment and Finance Committee makes investment decisions based on a comprehensive analysis and review of various risks, including natural environment risks and social issue risks, as well as business plans and economic evaluations.

2.3 Management of the Proceeds

Idemitsu will manage the proceeds from the Green/Transition Bond issuance on an annual basis until the full amount is appropriated, and our Finance and Accounting Department will manage the appropriation of the raised funds using an internal control system. The proceeds will be allocated to eligible projects within three years of issuance. In addition, the proceeds of the green/transition bond will be managed in cash or cash equivalents until the full amount is appropriated.

2.4 Reporting by issuers

2.4.1 Allocation Report

Idemitsu will report the allocation of the proceeds on Idemitsu's website annually until the proceeds have been fully allocated to Eligible Projects.

The report will include the aggregated amount of proceeds allocated to the Eligible Projects at Project Category level, the amount of unallocated proceeds and the amount of proceeds used for existing investments.

Idemitsu will report timely in the event of a significant change in the allocation plan.

2.4.2 Impact Report

Idemitsu will report the project outline and the following indicators on its website for each eligible project until the proceeds of the green/transition bond are used.

For transition projects, the Company will consider adding quantitative reporting items to the extent practicable.

Green/Transition Projects

Project Category	Eligibility Criteria	Impact Metric
Power and Renewable Energy	Projects related to the development, construction, operation, renovation, and other related expenditures for renewable energy (biomass, geothermal, solar, and wind) power generation facilities	<ul style="list-style-type: none"> • Installed capacity (MW) • Actual power generation (kwh) • Amount of CO₂ reduction/reduction contribution (t-CO₂)
Distributed energy	Projects related to the development, construction, operation, renovation, and other related expenditures of facilities for distributed energy	<ul style="list-style-type: none"> • Amount of CO₂ reduction/reduction contribution (t-CO₂) • The progress of the eligible project
Development of functional material products	Projects related to lithium solid electrolyte development, production, R&D and other related expenditures (electric vehicles (EV))	<ul style="list-style-type: none"> • The progress of the eligible project
Turning into "Carbon Neutral Transformation Centers"	Projects on the construction of a waste plastic recycling chain (manufacturing of chemicals)	<ul style="list-style-type: none"> • The progress of the eligible project
	Projects related to the development and promotion of circular business	<ul style="list-style-type: none"> • The progress of the eligible project

Transition Projects

Project Category	Eligibility Criteria	Impact Metric
Smart One-Stop Shops	Projects on manufacturing and sales of ultra-compact EVs	<ul style="list-style-type: none"> • The progress of the eligible project
	Projects related to MaaS services	<ul style="list-style-type: none"> • The progress of the eligible project
	Projects related to service station logistics bases, unmanned delivery, drone pesticide spraying, day services, etc.	<ul style="list-style-type: none"> • The progress of the eligible project
Turning into "Carbon Neutral Transformation Centers"	Projects on SAF (Sustainable Aviation Fuel) production and supply	<ul style="list-style-type: none"> • Product production volume (KL) • Amount of CO₂ reduction/reduction contribution (t-CO₂) • The progress of the eligible project

	Projects on building a CO ₂ -free ammonia supply chain for power generation and industrial sectors	<ul style="list-style-type: none"> • The progress of the eligible project
Low-carbon solutions for replacing coal-fired power generation	Projects on production, sales, and R&D of black pellets (with an eye on increasing the ratio of mixed firing and dedicated firing)	<ul style="list-style-type: none"> • Amount of CO₂ reduction/reduction contribution (t-CO₂) • The progress of the eligible project
Energy saving	Projects on Energy Saving Investment in Refineries and Complexes	<ul style="list-style-type: none"> • The progress of the eligible project

2.5 External Review

2.5.1 Second Party Opinion

Idemitsu as obtained a second party opinion from DNV, an independent external reviewer, on the alignment of this Framework with Green Bond Principles 2021 (ICMA), and Green Bond Guidelines 2020 (Ministry of the Environment, Japan), Climate Transition Finance Handbook 2020 (ICMA) and Basic Guidelines on Climate Transition Finance (May 2021) (Financial Services Agency, Japan; Ministry of Economy, Trade and Industry, Japan; and Ministry of the Environment, Japan).

2.5.2 Annual Review

Within one year from the date of issuance of the Green/Transition Bonds, Idemitsu will obtain a review from DNV, an independent external reviewer, to evaluate whether its reporting aligned with this Framework. This review will be conducted annually until the proceeds of the Green/Transition Bonds have been fully allocated.