

Transition Finance | Case Study 12 : Idemitsu Kosan Co., Ltd

Overview

■ Corporate Profile

Industry	Petroleum
Location	Japan
Business	Operates the following business globally; petroleum, basic chemicals, functional materials(lubricants, electronic materials, functional asphalt, agricultural biotechnology, solid electrolyte, etc) power and renewable energy, resources.

■ Bond Outline

Planned Issue Date	• After April 2022
Planned Amount	• 20 billion yen (Planned Term:5-10years)
Structuring Agency	• Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.
Evaluation Agency	• DNV BUSINESS ASSURANCE JAPAN K.K.

3rd Party Evaluation

- Idemitsu Kosan aims for business portfolio transformation in “Basic strategy towards 2030” and construct transition plans for its achievement. This procurement through transition finance sets the specific projects in these plans as Use of Proceeds.
- Confirmed that the transition plan of Idemitsu Kosan is aligned with the Roadmap for “Transition Finance” in Petroleum Sector, Chemical Sector and Power Sector formulated by METI and also aligned with “Progress Chart for the promotion of aviation decarbonization”^{**} by MLIT.
- Based on the origin of management “Ningen-Soncho(having respect for human beings” and management philosophy “Truly Inspired”, they promote initiatives such as “Smart Yorozuya” (One-Stop Shops) concepts and “CNX Center” which takes into account the negative impact, especially those on the employment. We have confirmed that these projects will not result in employment loss or other negative impacts from the perspective of just transition.
- For future transformation for business portfolio, Idemitsu Kosan plans a capital investment of 270 billion yen through FY2020~2022 and breakdown of these investment is consistent with business plan and transition plan.

Candidate for Use of Proceeds

Project Categories

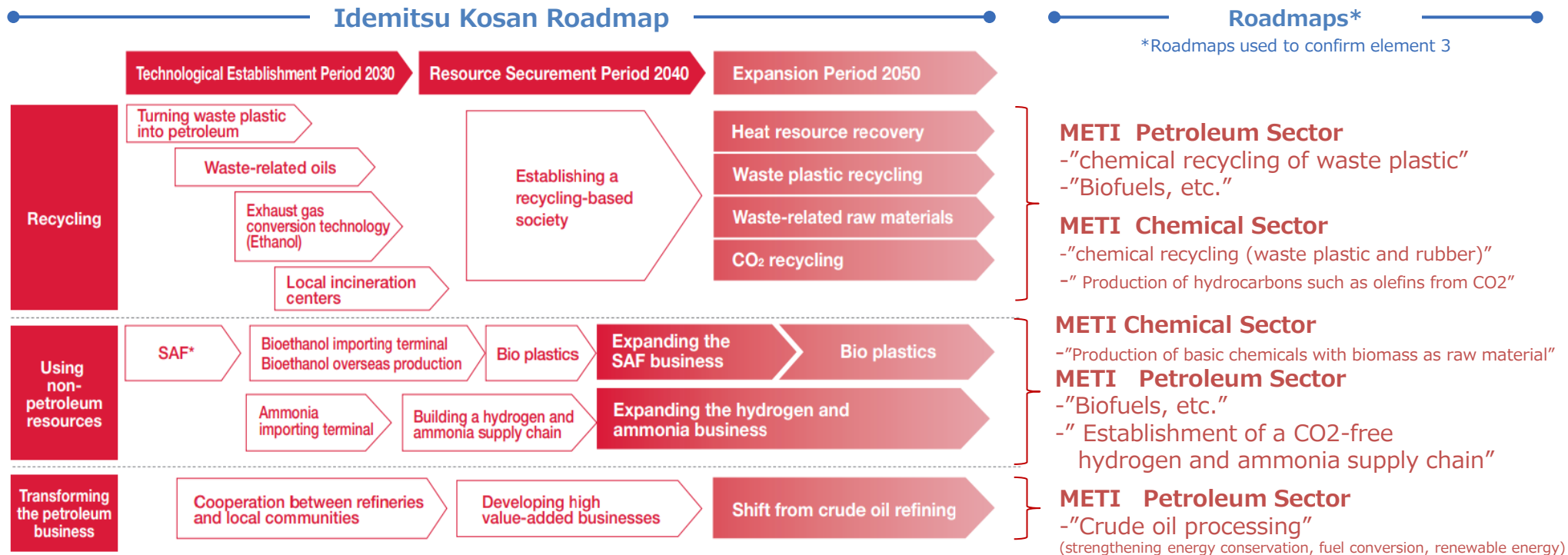
- ✓ Power and Renewable Energy
- ✓ Distributed Energy
- ✓ Turning into “Carbon Neutral Transformation Centers”
- ✓ Eco-friendly product, technology, and process
- ✓ Low carbon solutions
- ✓ Energy saving
- ✓ Smart One-Stop Shops
- ✓ Development of functional materials products

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Alignment with the Four Elements in Basic Guidelines on Climate Transition Finance

<p>Element 1 (Transition Strategy and Governance)</p>	<ul style="list-style-type: none"> • Transition strategy : aims for business portfolio transformation in “Basic strategy towards 2030” and construct transition plans for its achievement. • Governance : built a governance structure by establishing a new department responsible for carbon neutrality etc. 	<p>Element 3 (Science based Targets & Pathways)</p>	<ul style="list-style-type: none"> • Their transition plan is aligned with the Roadmap for “Transition Finance” in Petroleum, Chemical and Power Sector.
<p>Element 2 (Materiality)</p>	<ul style="list-style-type: none"> • Proclaims “harmony with the global environment and society” as their materiality and acknowledges measurements for climate change as essential and urgent issue 	<p>Element 4 (Transparency)</p>	<ul style="list-style-type: none"> • As a consideration to just transition, negative impacts on employment has been taken into account. • Plans a capital investment of 270 billion yen through FY2020~2022 for the future business portfolio transformation.

■ Transition Strategy and Science-based Targets (Elements 1・3)



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Key Points in the Case Study (Element 1: Transition strategy, Use of Proceeds)

Idemitsu Kosan Portfolio Transformation

[A]

Replacing Fossil fuel, basic chemicals business with Next generation fuels and materials, and circular business

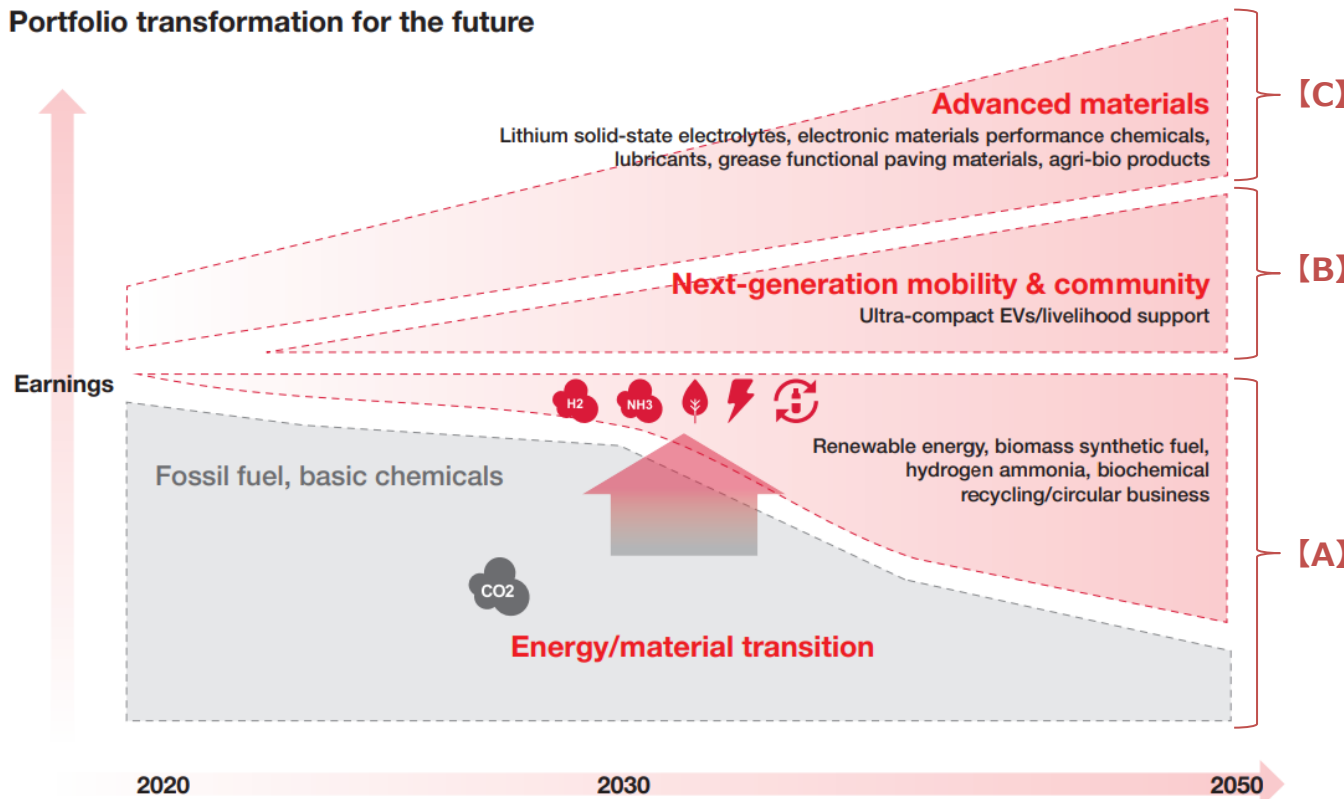
[B]

Turning apollostation into a "Smart Yorozuya" (One-stop shop)

[C]

Development of Advanced materials

Portfolio transformation for the future



Key Points

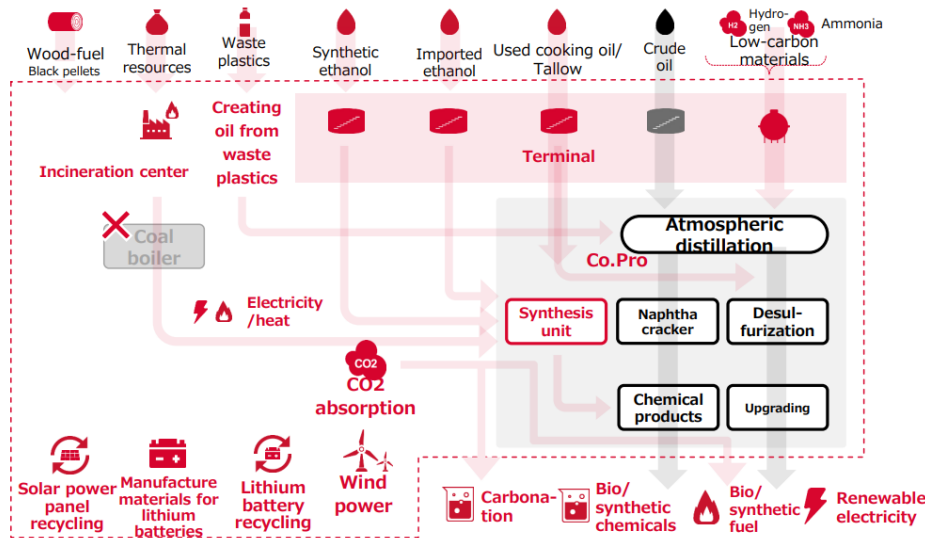
- Idemitsu Kosan considers 2050 carbon neutrality and plans a business portfolio transformation, which they have also established a transition roadmap to achieve the plan.
- The plan and roadmap includes the perspective of just transition and aims mutual benefit with the local area, thus strives for both regional revitalization and decarbonization.
- The Use of Proceeds for this transition bond is dedicated to the specific projects for these plans.
- Idemitsu Kosan has set a reduction target ahead of any other domestic company and is also the only domestic company to set quantitative index for Scope 1~3. Furthermore, their transition strategy is aligned with the Roadmap for "Transition Finance" in Petroleum Sector, Chemical Sector and Power Sector and considers 2050 carbon neutrality.

Transition Finance | Case Study 12 : Idemitsu Kosan Co., Ltd

Key Points in the Case Study (Element 1: Transition strategy, Elements 4 : Transparency (Just Transition))

- Form the just transition perspective, two initiative listed below considers not to cause employment loss

Concept for CX Centre



- Conversion of the current industrial complex to CNX Center aims to transition the value chain originating from low-carbon fuel and shift the current refinery and office to a low-carbon/resource hub.

Smart Yozoruya



- Utilizing the service stations across the nations and other facilities, aims to establish an ecosystem for solving regional specific issue.
- The scheme requires the development and provision of micro-EV, digital platform for MaaS, recycle system etc.. By working on the establishment of energy system, Idemitsu Kosan aims for just transition.

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Key Points in the Case Study (Use of Proceeds)

Use of Proceeds in this transition bond

Portfolio Transformation (categories)

[A]

Replacing Fossil fuel, basic chemicals business with Next generation fuels and materials, and circular business

[B]

Turning apollostation into a "Smart Yorozyua" (One-stop shops)

[C]

Development of Advanced materials

Project Categories

Eligibility Criteria

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

Distributed Energy

- Projects related to the development, construction, operation, renovation, and other related expenditures of facilities for distributed energy

Turning into "Carbon Neutral Transformation Centers"

- Projects on the construction of a waste plastic recycling chain (manufacturing of chemicals)
- Projects on SAF (Sustainable Aviation Fuel) production and supply
- Projects on building a CO₂-free ammonia supply chain for power generation and industrial sectors

Eco-friendly product, technology and process

- Projects related to the development and promotion of circular business

Low carbon solutions

- Projects on production, sales, and R&D of black pellets (with an eye on increasing the ratio of mixed firing and dedicated firing)

Energy saving

- Projects on Energy Saving Investment in Refineries and Complexes

Smart One-Stop Shops

- Projects on manufacturing and sales of ultra-compact Evs
- Projects related to MaaS services
- Projects related to service station logistics bases, unmanned delivery, drone pesticide spraying, day services, etc.

Development of functional material products

- Projects related to lithium solid electrolyte development, production, R&D and other related expenditures (electric vehicles (EV))

※ Fuel for biomass power, 35% mixed firing with coal-fired thermal power is possible without any modification to the current facility. Continuous R&D to increase the mixed firing rate and exclusive firing.

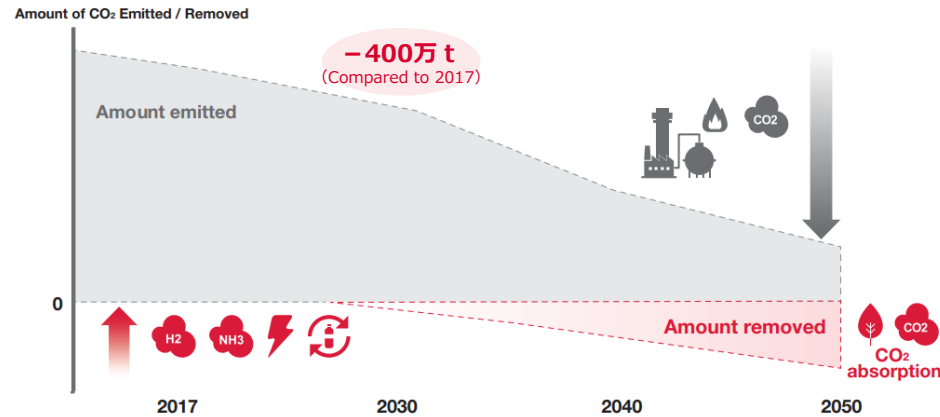
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Key Points in the Case Study (Element 3 : Science Based Transition Strategy)

- Interim target are set for Scope 1 and 2 in addition to 2050 net zero target. Plans to reduce emission from refineries, petrochemical plants by energy conservation and improve efficiency, and utilization of renewable energy.
- The emission of the sold product in oil business depends on the trends of other industry which makes it difficult to set targets for Scope 3. However, Idemitsu Kosan has set supplied energy as a monitoring index (They are the sole company in Japan setting quantitative index in oil business)

Reduction Targets of Scope 1 and 2

Scope	Middle Term	2050
Scope 1 + 2	-4 million ton (2030, Compared to 2017)	Net Zero



Reduction Method

- 1. Promote energy conservation**
Improvement of operation and capital investment for refineries and offices (energy conservation by highly efficient naphtha cracking etc)
- 2. Fuel switching**
Partial conversion to biomass boiler from coal boiler in refineries
- 3. Renewable power**
Switching to renewable energy in offices etc.
- 4. Structural transformation**
Reduction of CO₂ emissions through turning refineries into "Carbon Neutral Transformation Centers"

Monitoring Indicator (including Scope3)

Scope	Index	Middle Term	2050
Scope 3	Low carbon level of supplied energy*	-	-30% (compared to 2017)
	Renewable energy development	4 GW (2030)	
	Black pellets (biomass fuel)	2 million/year (2030)	
	SAF	0.1 million KL (2025)	

Calculation formula of Low carbon level of supplied energy

$$\left[\frac{\text{CO}_2 \text{ emissions (Scope1+2+3)} - \text{CO}_2 \text{ avoided emission}}{\text{Amount of energy supplied to society}} \right]^* \text{ CO}_2 \text{ reduction contribution throughout the entire value chain}$$

- ※ Low carbon level of supplied energy excludes the substantial emission of this company through their business operation by subtracting the amount of supplied energy.
- ※ Set by referring the Japan's low carbon level of supplied energy from their scenario analysis. Future trend and other industries' course of action will be taken into account and will continue to consider business environmental scenario.

Transition Finance | Case Study 12 : Idemitsu Kosan Co., Ltd

Case Study : Idemitsu Kosan Co., Ltd Transition Bond

Modelability Review Results: Approval

Considers just transition and plans business portfolio transformation for decarbonization and is appropriate as a model case

Main opinions

Transition strategy

- Good example of a company with fossil fuel as their core business attempting for business transportation
- Appropriate for a model case as they establish a drastic business portfolio transformation and strategy for decarbonization.
- It is important that they also consider the aspects of just transition by projects such as service station in regard to their business transformation.
- Future expectations on projects related to e-fuels for automobile and disclosure of strategy.

Scientific basis

- Ambitious interim targets are set for Scope1~2, and are aligned with each sectoral roadmaps.
- Indexes including Scope3 depends heavily on the trends of other industries (especially automobile) which makes it difficult for Idemitsu Kosan to set a target. However, highly appreciate them setting a monitoring index as a trial/frontrunner regardless of the circumstances.

Other elements/others

- Black palette, one of the Use of Proceeds, is a unique technology. Expect Idemitsu Kosan to also consider the sustainability of the feedstock and have high hopes for it to become a fuel for enabling CO2 emission reduction.
- SAF is a technology both promising and essential. In the short term, waste oil and materials are assumed to be used and expects for further positive projects in the future.
- Service Stations are important for just transition as well as from the perspective of stable energy supply. These projects are essential to improve resilience of the region.
- Consideration of a mechanism for cooperation and collaboration with dealers will be important, when working on the service stations.