Overview

■ Corporate Profile

Industry	Chemicals
Location	Japan
Business	A major general chemical company. It is the second largest chemical manufacturer in Japan. The company operates in a wide range of businesses, including the petrochemical industry and pharmaceuticals.

-3rd Party Evaluation

- Sumitomo Chemical has made it a "responsibility" to reduce GHG emissions from the Group's manufacturing processes to near zero, and has set targets of 50% reduction from the FY2013 level by FY2030 (Scope 1 and 2) and net zero by 2050. The setting of these targets has obtained SBTi certification.
- It was confirmed that the company has a system in place and a concrete investment plan to achieve the targets. Based on this, the evaluation agencies have made the evaluations that the organization's environmental initiatives are also progressive and ambitious, and there is a clear commitment from the management team.
- The construction of the LNG-fired power generation facility for which the funds are being used is positioned as one of the main measures to achieve the mid- to long-term environmental target of reducing GHG emissions by 50% from the FY2013 level by FY2030. In the future, the use of hydrogen in gas turbines will also become possible through future technological development and progress in social implementation. Therefore, the evaluation agencies have confirmed that the technology does not lock in fossil fuels.

■ Loan Outline

_	Planned Issue Date	From March 2022
	Borrowers	Sumitomo Joint Electric Power Co., Ltd.,Sumitomo Chemical Company, Limited
	Amount	8 Billion Yen10 Billion Yen
	Evaluation Agency	Japan Credit Rating Agency, Ltd.DNV BUSINESS ASSURANCE JAPAN K.K.
		— Candidate for Use of Proceeds————

Candidate for Use of Proceeds

✓ The loans will be used for the construction of LNG-fired power generation facility in the Ehime and Chiba districts.

Fuel before conversion

Ehime district Oil and heavy oil Chiba district

Petroleum coke

Fuel after conversion

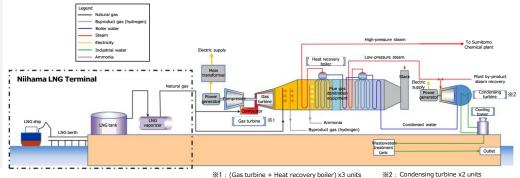
CO₂ emissions reduction

Natural gas and byproduct gas (Hydrogen)

650,000 tons/year

Natural gas

240,000 tons/year



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

Element 1 (Transition Strategy and Governance)

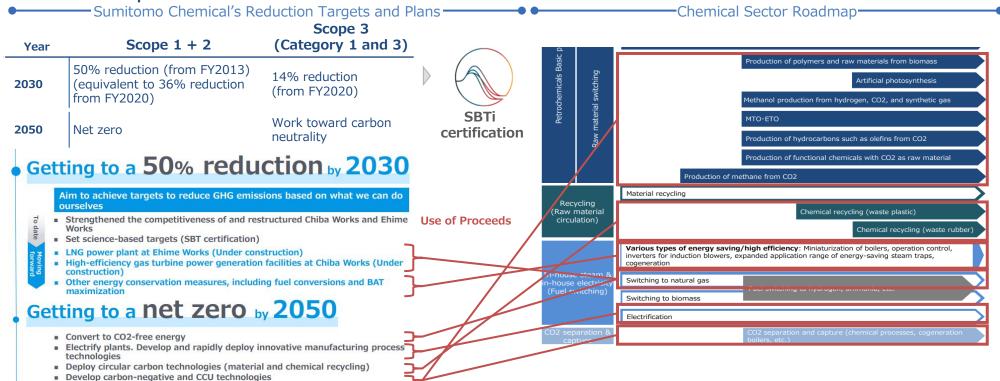
- Transition strategy: The company has established concrete measures to achieve the ambitious target of 50% reduction by 2030 and net zero by 2050. It is also striving for rapid social implementation of products and technology that contribute to global GHG reduction.
- Governance: An organization to promote carbon neutrality led by Board of Directors has been established.

Element 3 (Science based Targets & Pathways)

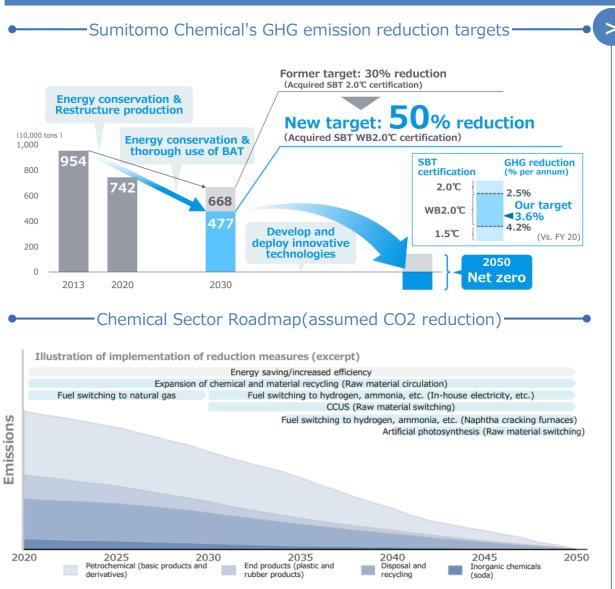
- Medium- and long-term targets have been set for Scopes 1, 2 and 3. The interim target for FY2030 and long-term target of net zero including all Scopes 1,2 and 3 has obtained SBTi certification.
- Targets are also in alignment with the Ministry of Economy, Trade and Industry's Technology Roadmap for "Transition Finance" in the Chemical Sector.

Element 2 (Materiality) Mitigation of climate change is listed first among contributions to reducing environmental impact in the material issue concerned with social value creation. Element 4 (Transparency) The company has formulated an investment plan based on internal carbon pricing, and expects to invest a total of 200 billion yen, with 80 billion yen by FY2021 and 120 billion yen by FY2030.

■ Transition Strategy and Science-based Targets (Elements 1·3) | Alignment with Sumitomo Chemical's Roadmap and Chemical Sector Roadmap



Key Points in the Case Study (Element 3: Science-based Targets & Pathways)



Key Points

- In 2021, the Sumitomo Chemical Group further raised its GHG emission reduction targets to net zero by 2050. The Group has also established a strategy, put in place a framework, and formulated a concrete investment plan to achieve these targets.
- These targets and the strategy are in alignment with the chemical sector roadmap. It has also obtained SBTi certification for the targets, as a level well below 2°C.
- The construction of the funded LNGfired power plant is positioned as one of the main measures to realize the 2030 target and will contribute to the transition strategy over the mediumto long term. In addition, the facility can also be expected to utilize hydrogen in the future.
- The company has also established a dedicated governance structure for promoting carbon neutrality to ensure effectiveness.

2013

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

- Built an organizational structure dedicated to advancing carbon neutrality.
- Built a Carbon Neutral Strategy Council comprised of Executive Meeting members. Furthermore, gathered experts from departments and group companies to form Carbon Neutral Strategy Council.

- Expect to invest 200 bn. yen to become carbon neutral and have disclosed it in the plan.
- Implemented an internal carbon pricing system for internal investment decision making.

Investment Plan

Carbon Neutral Strategy Council (Comprised of Executive Meeting members)

Carbon Neutral Strategy Cross-Functional Team

Sumitomo Chemical

Research Planning and Coordination Dept. Corporate Planning Office Production Engineering Dept.

Responsible Care Dept. Sustainability Promotion Dept. Petrochemicals Research Lab

Business Development Office for a Circular System for Plastics

Group companies Sumitomo Chemical Europe S.A./N.V. Sumitomo Joint Electric Power

Gather experts from within the group to form a team capable of taking action and executing

By 2021

80 bn. yen
(Already decided or executed)

Rebuild production structures at Chiba and Ehime Works
Plant energy conservation measures
Fuel conversions from coal and heavy oil to LNG

By 2030

120 bn. yen
(To be studied)
Energy conservation measures and production equipment upgrades at plants
Chemical recycling of plastic resources
CO2 separation, CCU and others

Since FY2019, business investments factor in an:
Internal carbon pricing system

carbon price of 10,000 yen per ton

Make investment decisions based on economics calculations that reflect an internal

4

Model Quality Examination Committee | Summary of Results

Case Study: Sumitomo Chemical Company, Limited Transition Loan

Modelability Review Results: Approval

Strategy and targets are both appropriate as model cases, partly due to the implementation of initiatives from an early stage

Main opinions

Transition strategy

- The conversion to LNG-fired power will have a significant effect on reducing emissions, and, with an eye on future conversion to hydrogen etc., it is also appropriate in terms of looking ahead to greening and decarbonization.
- In a position where decarbonization is difficult, the project focuses on replacing coal, heavy oil, petroleum coke and is suitable for transition overall.

Scientific basis

- Partly because management has been focusing on sustainability for many years, the emission reduction targets are ambitious.
- It excels by setting targets for Scope 1~3 in interim and long-term target and is also aligned with the chemical sector roadmap. Additionally, it has been certified by SBTi WB2.0, a more ambitious target, which is excellent.

Other elements/others

- Sumitomo Chemical has been very early in considering and implementing countermeasures, including TCFD compliance, and has a solid governance structure.
- While promoting initiatives in Japan, oversea initiatives are expected in the future.
- Being an excellent plan and have solid plan, a little more disclosure (framework for use of proceeds etc) to promote the strategy.

This document focuses on the contribution of transition finance to the realization of Japan's carbon neutrality by 2050 and the Paris Agreement, and does not cover any of the risks associated with transition finance as a financial instrument. It should be noted that even in the model case of this project, there are credit risks and other risks (in the case of bonds, price fluctuation risks, liquidity risks, etc.) as in ordinary financing.