



October 18, 2023 Cosmo Energy Holdings Co., Ltd. SEKISUI CHEMICAL CO., LTD.

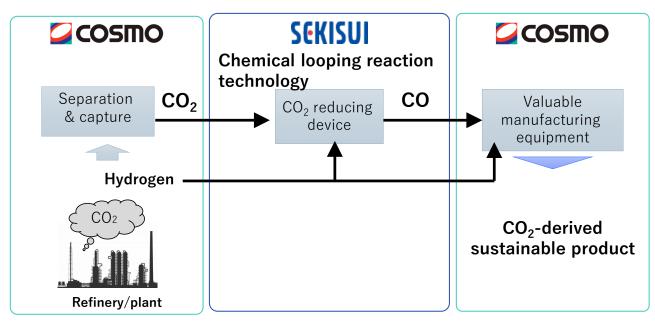
Cosmo Energy and SEKISUI to Initiate a Joint Study Toward CCU Using a Chemical Looping Reaction Technology

Cosmo Energy Holdings Co. Ltd. and SEKISUI CHEMICAL CO., LTD. (hereafter, "SEKISUI CHEMICAL") today concluded a basic agreement regarding a joint study toward CO₂-to-valuables conversion (Carbon Capture and Utilization; hereafter, "CCU") using a SEKISUI CHEMICAL technology for the high-yield conversion of carbon dioxide (CO₂) to carbon monoxide (CO) (hereafter, "chemical looping reaction technology").

SEKISUI CHEMICAL has developed a chemical looping reaction technology that converts CO₂ to CO at a high CO₂ conversion rate of 90% using a unique catalyst and reaction process developed in-house. CO converted from captured CO₂ is attracting attention as a useful substance for CCU as it can serve as a raw material for alcohols such as methanol and ethanol, which are key substances that can be used in chemical products and energy applications, as well as synthetic fuels and the like.

Through this joint study, the two companies will examine factors such as the CO₂ reduction effect and investment profitability, with the aim of producing sustainable products derived from CO₂ emitted from refineries and other Cosmo Energy Group facilities.

Joint study conceptual diagram



The Cosmo Energy Group announced its 2050 Carbon Net Zero Declaration and is accelerating decarbonization-related initiatives under its Vision 2030 and Seventh Consolidated Medium-Term Management Plan Oil & New ~Next Stage~. This project is one of a number of concrete measures that the Group is taking to "strengthen competitiveness of the Oil Business and pursue low carbonization" as set forth in Vision 2030. It is being carried out with the goal of solving societal challenges and achieving sustainable corporate development toward the realization of the Group's management vision of achieving "harmony and symbiosis between our planet, man and society."

The SEKISUI CHEMICAL Group has set "Innovation for the Earth" as its vision statement in its long-term vision, Vision 2030, declaring that it will "support the basis of LIFE and will continue to create 'peace of mind for the future' in order to realize a sustainable society" through continuous innovation. It is also working on new technologies and projects that contribute to decarbonization. Going forward, the SEKISUI CHEMICAL Group will continue to help solving social issues, with the aim of balancing the realization of a sustainable society with the Group's growth, and will undertake initiatives to ensure that it continues to be a company that is trusted by its stakeholders.

※: About chemical looping reaction technology

An innovative technology that uses as a unique catalyst and reaction process developed in-house by SEKISUI CHEMICAL to convert CO₂ to CO, which serves as a raw material for alcohols, acetic acid and other chemical products, and synthetic fuels, etc. at a high CO₂ conversion rate of 90%.

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