

February 26, 2024

Japan Petroleum Exploration Co., Ltd.

JGC Holdings Corporation

Kawasaki Kisen Kaisha, Ltd.

JFE Steel Corporation

The Chugoku Electric Power Co., Inc.

Nippon Gas Line Co., Ltd.

The Chugoku Electric Power and Nippon Gas Line Participate
in the Joint Evaluation to Establish CCS Value Chain Originated from Japan
for the CCS Project in Malaysia

Japan Petroleum Exploration Co., Ltd. (JAPEX), JGC Holdings Corporation (JGC HD), Kawasaki Kisen Kaisha, Ltd. (“K” LINE), and JFE Steel Corporation (JFE Steel) have agreed that The Chugoku Electric Power Co., Inc. (EnerGia) and Nippon Gas Line Co., Ltd. (NGL) participate in the joint evaluation aiming to establish CCS (Carbon Capture and Storage) value chain originated from Japan (hereinafter “the Joint Evaluation”) for the CCS project in Malaysia and concluded a Memorandum of Understanding (MOU) among the six companies (hereinafter “the Six Companies”) on February 26, 2024.

JAPEX, JGC HD, “K” LINE (hereinafter “the Three Companies”), and PETRONAS CCS Ventures Sdn. Bhd. (PCCSV) signed the Key Principles Agreement in September 2023 to commercialize the CCS project (hereinafter the “CCS Project Development”) and have commenced the specific preparatory works with a view of beginning the front-end engineering design in 2024 and the subsequent construction works^{*1}. As part of the CCS Project Development, the Three Companies conducted a survey assuming receipt of CO₂ from Japan and discussions with candidate CO₂ emitters, have found that their direction aligns with EnerGia’s to consider further reduction methods of CO₂ emissions from power generation businesses, and with NGL’s to proceed with commercialization of domestic marine transportation of liquefied CO₂, therefore, the Six Companies signed the MOU to conduct the Joint Evaluation, in addition to JFE Steel which participated in June 2023^{*2}.

The Six Companies will conduct the Joint Evaluation, collaborating with the CCS Project Development, to establish the CCS value chain, from CO₂ separation and capture at JFE Steel’s steelworks and EnerGia Group’s power plant to marine transportation (including domestic marine transportation in the Setouchi area) of liquefied CO₂ to the receiving point(s) in Malaysia, including estimation of required facilities and costs.

In the CCS Project Development, aiming to start injection and storage of CO₂ emitted in Malaysia as well as captured outside Malaysia such as in Japan under the seabed at the end of 2028, the Three Companies have been proceeding with the detailed study on the specifications and estimated costs of ,necessary facilities, including CO₂ pipelines from onshore gathering

facilities, marine transportation of liquefied CO₂, and receiving facilities for liquefied CO₂ transported by ships and offshore injection facilities, and business scheme.

By executing the Joint Evaluation for the early commercialization of the CCS project, JAPEX, JGC HD, “K” LINE, JFE Steel, EnerGia, and NGL will contribute towards carbon neutrality in 2050, including the realization of a de-carbonized society in Asia targeted by the “Asia Energy Transition Initiative (AETI)”^{*3}.

*1: Please refer to a joint press “JAPEX, JGC HD, and “K” LINE Sign a Key Principles Agreement with PETRONAS for the maturation and development of the CCS Project in Malaysia” on November 20, 2023

<https://www.kline.co.jp/en/news/carbon-neutral/carbon-neutral-20231120.html>

*2: Please refer to a joint press “Agreed on Joint Evaluation with JFE Steel Corporation to Establish CCS Value Chain Originated from Japan Aligned with CCS Study in Malaysia” on June 19, 2023

<https://www.kline.co.jp/en/news/carbon-neutral/carbon-neutral-20230619.html>

*3: The Japanese Government’s initiative announced in May 2021, which aims to achieve sustainable economic growth and carbon neutrality simultaneously in Asia.