

June 19, 2023

Japan Petroleum Exploration Co., Ltd.

JGC Holdings Corporation

Kawasaki Kisen Kaisha, Ltd.

JFE Steel Corporation

Agreed on Joint Evaluation with JFE Steel Corporation  
to Establish CCS Value Chain Originated from Japan Aligned with CCS Study in Malaysia

Japan Petroleum Exploration Co., Ltd. (JAPEX), JGC Holdings Corporation (JGC HD), Kawasaki Kisen Kaisha, Ltd. ("K" LINE), and JFE Steel Corporation have agreed to conduct a joint evaluation aiming to establish the CCS (Carbon Capture and Storage) value chain originated from Japan (hereinafter "the Evaluation"), aligned with the joint study\*<sup>1</sup> on CCS in Malaysia with Petroliaam Nasional Berhad (PETRONAS), and concluded a Memorandum of Understanding (MOU) among the four companies on June 19.

JAPEX, JGC CORPORATION (JGC), an operating company of JGC HD for overseas EPC (engineering, procurement, and construction), and "K" LINE, has been proceeding with the joint study (hereinafter "the Study") with PETRONAS, including study on suitable sites for CO<sub>2</sub> storage in Malaysia and its technical evaluations, CO<sub>2</sub> capture and transport from the PETRONAS's LNG complex in Bintulu, and potential of transportation from outside Malaysia including Japan. As part of this study, the three companies also have worked on the investigation and dialogue with potential candidate emitters, considering CO<sub>2</sub> transportation from Japan. As a result of the dialogue with the candidates, the four companies have found that their future direction of the Study aligns with the one of JFE Steel, which has been considering reduction of CO<sub>2</sub> emission from their operations. Therefore, the four companies signed the MOU to conduct the Evaluation.

The four companies will conduct the Evaluation to establish the CCS value chain, from CO<sub>2</sub> separation and capture at JFE's steelworks in Japan, to marine transportation of liquefied CO<sub>2</sub> to the receiving point(s) in Malaysia, including estimation of required facilities and costs. The Evaluation will also be appropriately aligned with the study of CO<sub>2</sub> receipt and storage in Malaysia within the scope of the Study with PETRONAS.

By the establishment of the international CCS value chain through the Evaluation, JAPEX, JGC HD, "K" LINE, and JFE Steel aims to contribute for the realization of carbon neutrality by 2050, including the realization of de-carbonized society in Asia targeted by Asia Energy Transition Initiative (AETI)\*<sup>2</sup>.

\*1: Please refer a joint press release “JGC CORPORATION and Kawasaki Kisen Kaisha, Ltd. Joins CCS Study in Malaysia” on July 29, 2022.

<https://www.kline.co.jp/en/news/carbon-neutral/carbon-neutral7943232713056097109/main/0/link/220729EN.pdf>

\*2: The Japanese Government's initiative announced in May 2021, which aims to achieve sustainable economic growth and carbon neutrality simultaneously in Asia.