Note: The following is an English translation of the Japanese-language original.

October 15, 2024

[Press Release]

Japan Petroleum Exploration Co., Ltd. Idemitsu Kosan Co., Ltd. Hokkaido Electric Power Co., Inc.

# JAPEX, Idemitsu, and HEPCO Commission an engineering design work toward the Launch of CCS Project in Tomakomai Area as the "Japanese Advanced CCS Project"

Japan Petroleum Exploration Co., Ltd. (JAPEX), Idemitsu Kosan Co., Ltd. (Idemitsu), and Hokkaido Electric Power Co., Inc. (HEPCO) (hereinafter the "Three Companies" for the three companies together) signed a contract with Japan Organization for Metals and Energy Security (JOGMEC) for an engineering design work of CCS <sup>(\*1)</sup> in the Tomakomai area, which is one of the public solicitations regarding the Request for Proposal on the "Engineering Design Work for Advanced CCS Projects" in the fiscal year 2024 (hereinafter the "Public Solicitation").

The Three Companies were selected by the Public Solicitation upon their application for the CCS project in the Tomakomai area to carry out "basic engineering design for CCS value chain <sup>(\*2)</sup>" and "assessment on CO<sub>2</sub> storage potential at the planned CO<sub>2</sub> storage site", following the feasibility study conducted in FY2023 <sup>(\*3)</sup>, with the aim of the launch of CCS projects by FY2030.

The Three Companies will conduct specific technical studies on CO<sub>2</sub> separation and capture as well as CO<sub>2</sub> transport and storage as part of the "basic engineering design for CCS value chain" towards business implementation decisions.

Specifically, for the CO<sub>2</sub> separation and capture, Idemitsu and HEPCO will perform works including basic engineering design for the necessary equipment at each CO<sub>2</sub> emission source. For the CO<sub>2</sub> transport and storage, JAPEX will conduct works including basic engineering design for the pipelines and equipment connecting each emission source to the candidate storage site. In addition, JAPEX will carry out assignments including basic engineering design for the equipment necessary for injecting and monitoring deep saline formations <sup>(\*4)</sup> of the sea area around Tomakomai to achieve a CO<sub>2</sub> storage volume of 1.5 to 2 million tons per year in 2030.

As part of the "assessment on  $CO_2$  storage potential at the planned  $CO_2$  storage site", JAPEX will carry out preparatory works for an exploratory well (e.g., construction work to prepare the site for an exploratory well), formulate a plan for procuring and storing the equipment and materials needed for an exploratory well, drilling an exploratory well, and analyze and assess the data obtained from the exploratory well.

Through the engineering design works, the Three Companies will aim to launch CCS projects by 2030 and expand into future Hubs & Clusters <sup>(\*5)</sup> CCUS <sup>(\*6)</sup> operations to contribute to the realization of "carbon neutrality in 2050." The Three Companies will work towards commercialization while gaining further

understanding of CCS/CCUS from the local residents and continuing dialogue with the local government, fishing industry, and companies around the Tomakomai area.

Notes)

- \*1: Carbon dioxide Capture and Storage.
- \*2: The series of processes involved in CCS, including CO2 separation and capture, transport, and storage.
- \*3: "JAPEX, Idemitsu, and HEPCO Commission a CCS Study in Tomakomai Area as the "Business Feasibility Study on Japanese Advanced CCS Project" in FY2023" released on July 19, 2023.
- \*4: Deep underground sandstone formations filled with salt water unsuitable for drinking.
- \*5: An efficient form of value chain that collects CO<sub>2</sub> from multiple emitting sites in a region to a hub location and transport and inject the CO<sub>2</sub>.
- \*6: Carbon dioxide Capture, Utilization, and Storage.

# (Reference)

#### Location in the Tomakomai area



### Scope of the Work



## (Reference)

### Image of CCS



#### Work contents and schedule

Work contents for the three companies (assumptions)	FY 2024	FY 2025	FY 2026
<ul> <li>①Basic engineering design for the CCS value chain</li> <li>• Equipment engineering design of CO<sub>2</sub> separation and Capture : Idemitsu, HEPCO</li> <li>• Equipment engineering design of CO<sub>2</sub> transport and storage : JAPEX</li> </ul>			
②Preparatory work for Assessment on CO <sub>2</sub> storage potential • Work related to exploratory : JAPEX			
③Assessment on CO <sub>2</sub> storage potential • Analysis and assessment of exploratory data : JAPEX			

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