

MEDIA RELEASE

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For Immediate Release

Release of Summary Report of Tomakomai CCS Demonstration Project

Tokyo, Japan – Japan CCS Co., Ltd. (hereinafter “JCCS”; Head Office: Chiyoda-ku, Tokyo; President: Shoichi Ishii) herewith announces that the “Report of Tomakomai CCS Demonstration Project at 300 thousand tonnes cumulative injection” (hereinafter “Summary Report”) has been issued.

1. Context of Summary Report

Covering the period of project startup in FY2012 through achievement of 300 thousand tonnes cumulative CO₂ injection on November 22, 2019, this report summarizes the outcomes and issues of the Tomakomai CCS Demonstration Project at the time of 300 thousand tonnes cumulative injection, based on the discussions by a wide range of experts in fields including mechanical engineering, chemical engineering, geology and geophysics.

2. Background and Current Situation

JCCS was selected as the contractor for the public tender "FY2012 CO₂ Reduction Technology Demonstration Project" held by the Ministry of Economy, Trade and Industry of Japan (METI), and under the national policy aiming towards the practical use of CCS technology around 2020 commenced a demonstration project in Tomakomai from FY2012. During the 2 years of FY2018 and FY2019, JCCS has conducted the project under the contract “CCS R&D and Demonstration Related Projects / Large Scale CCS Demonstration Project in Tomakomai” under the commissioning of the New Energy and Industrial Technology Development Organization (NEDO).

During the 4 years from FY2012 to FY2015, the facilities to capture high purity CO₂ from CO₂ containing gas emitted by a hydrogen production unit of a refinery - the CO₂ source, and the facilities to inject CO₂ underground were designed and constructed. In addition, the conversion of an existing survey well into an observation well, and the drilling of 2 observation wells and 2 injection wells was completed.

At the same time, in order to verify that CO₂ injection into the reservoir will not affect the surrounding environment, a monitoring system to record formation and earthquake data was established, and baseline data prior to injection was obtained. Also, as the reservoir for CO₂ storage was to be in the sub-seabed, a baseline survey of seawater and marine organisms was conducted in accordance with the Act for the Prevention of Marine Pollution and Maritime

Disasters.

From April 2016, targeting annual injection of 100 thousand tonnes, CO₂ was injected into a formation 1,000m sub-seabed in the harbor area of Tomakomai Port, as well as experimental injection into a formation 2,400m under the seabed.

On November 22, 2019, cumulative CO₂ injection reached the target of 300 thousand tonnes, and accordingly, injection has been suspended.

3. Future Plans

Monitoring of micro-seismicity, marine environmental surveys around the storage site, and monitoring of the behavior (movement, distribution) of the injected CO₂ will be continued.

*Monitoring Operations

Monitoring will be conducted in order to grasp the behavior (movement, distribution) of the injected CO₂, micro-seismicity and natural earthquakes will be observed on a 24-hour basis, and marine environmental surveys will be carried out to verify that there is no CO₂ leakage.

4. Tomakomai CCS Demonstration Project Milestones

- Startup of injection preparations including design and construction of facilities: April 2012
- Commencement of CO₂ injection: April 6, 2016
- Achievement of 300 thousand tonnes of CO₂ injection: 7:07am, November 22, 2019

Related Links:

[Ministry of Economy, Trade and Industry Press Release](#)

[New Energy and Industrial Technology Development Organization \(NEDO\) Press Release](#)

[“Tomakomai CCS Demonstration Project – Target of 300,000 tonnes of carbon dioxide \(CO₂\) injection achieved” - JCCS Media Release dated on November 25, 2019](#)

About Japan CCS Co., Ltd.: Commissioned by the Japanese government to demonstrate a full chain CCS system in Tomakomai City, Hokkaido, Japan CCS Co., Ltd. (JCCS) was founded in May 2008 when a group of major companies with expertise in CCS-related fields, including electric power, petroleum, oil & gas exploration and development, and plant engineering, joined forces to answer the Japanese government’s call for development of CCS technology as a countermeasure against global warming. JCCS is a unique company in the world to be founded and dedicated explicitly to developing integrated CCS technology. More information:

<https://www.japanccs.com/en/>

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