Comments from international experts on Tomakomai CCS project at GHGT-14 (Oct. 22-26, 2018, Melbourne)



'I visited Tomakomai in 2016, and am so impressed to see how it has been progressed since that time. The project is a world-class project. Going forward, we hope to see the results moving CCS and CCUS further across the world."

Mr. Brian Allison, Assistant Head, U.K. Department of Energy & Climate Change CCS Team



"We are very closely watching the Tomakomai Project, a great example of public outreach activity." Ms. Jane Burton, Director, State



Government Victoria

"The Tomakomai Project is a great project as good learning is going on in the offshore storage of CO₂. Thank you for your learning and experiences for the world."

Mr. Tim Dixon, Program Manager, IEAGHG



"The project is a great success in advancing energy technology. The project is a global example of how Japan is leading the demonstration of the usefulness of CCS technology and safety of the project. Congratulations on the success of the project development and to the citizens of the city." Dr. Tip Meckel, Research Scientist, The University of Texas at Austin



"Tomakomai is an absolutely important exemplar of Japanese technology, Japanese innovation, and in many ways is now leading the world in CCS.' Mr. Brad Page, CEO, Global CCS Institute



"I learned a lot about the Tomakomai Project. We really hope to meet again and talk about further collaboration in the future through the Tomakomai Project." Prof. Ralf R. Haese, University of Melbourne, Director of Peter Cook Centre for CCS Research



"I am very happy to give my best wishes to the people of Japan and Tomakomai and just mention how excited the rest of the world is of the progress you have made in this city representing Japan and capturing and storing CO₂ for the

University of Illinois at Urbana-Champaign



"The learning on the Tomakomai Project is promoted to the global audience through many activities of JCCS. I look forward to working with the Tomakomai Project going forward in the future."

Mr. Ian Havercroft, Global CCS Institute

"At GHGT-14, it was very nice to see the best practices of the work within communication and public engagement of CCS. It is great to see the leadership of Tomakomai and we in Norway are very pleased in working with Tomakomai and discussing how to communicate CCS to ordinary people." Ms. Torund Bryhn, Director of

world." Dr. Sallie E. Greenberg, Associate Director,



Public Affairs, Gassnova

Site tours to Tomakomai CCS Demonstration site by international visitors

(Foreign governments, international organizations, media, others: 2012~2018)

[Foreign Governments]

U.S. (Department of Energy, U.S. Embassy) U.K. (Dept. for Business, Energy and Industrial Strategy) Canada (Natural Resources Canada) P.R. China (National Development and Reform Commission, Ministry of Science and Technology, Chinese Embassy) Thailand (Ministry of Energy) Indonesia (Ministry of Energy and Mineral Resources) Australian Government (Dept. of Industry and Science, Geoscience Australia, Australian Embassy (Ambassador, Minister, others)) Switzerland (Embassy of Switzerland (Minister)) India (Embassy of India (Counsellor)) Norway (Norwegian Embassy) State of Wyoming

[Foreign Media]

Reuters (U.K.) Financial Times (U.K.) Frankfurter Allgemeine Zeitung (Germany) Suddeutsche Zeitung (Germany) Swiss Radio and TV SRF (Switzerland) USA TODAY (U.S.A.) Agencia EFE (Spain) Vietnam News Agency (Vietnam) Thailand media (newspapers, TV)

Trainees from abroad

JCCP (Japan Cooperation Center Petroleum) Training Program India, Indonesia, Iran, Iraq, Kazakhstan, Kuwait, Mexico, Myanmar, Oman, Peru, Philippines, Saudi Arabia, Thailand, UAE, Vietnam, UAE

[International Organizations]

Global CCS Institute CSLF (Carbon Sequestration Leadership Forum) ISO/TC265 IEA (International Energy Agency) BHP (Australia) CO2CRC Ltd. (Australia) ECCSEL Saudi Aramco SINOPEC (China Petrochemical Corporation) China National Petroleum Corporation PEMEX (Mexico) EDF (Electricite de France) TOTAL (France) Korea Institute of Energy Research **Korea Electric Power Corporation** Korea Electric Power Research Institute MIRECO (Korea) Industrial Technology Research Institute, Taiwan Power Company

International Recognition of Tomakomai CCS Demonstration Project at COP24 (The 24th Conference of the Parties to the United Nations Framework Convention on Climate Change)

CHANGING OUR FUTURE WITH CCS! -From JAPAN to the World-



WEDNESDAY 12 DECEMBER 2018 5:45 PM-7:00 PM

GLOBAL CCS INSTITUTE EAGHG JAPAN CCS CO., LTD. TOSHIBA ENERGY SYSTEMS & SOLUTIONS CORPORATION MINISTRY OF ECONOMY, TRADE AND INDUSTRY, JAPAN

HOSTED BY TRY OF ECONOMY, TRADE AND INDUST CO-HOSTED BY AN CCS CO. ITD



COP24 Japan Pavilion Side Event "Changing Our Future with CCS!"

Venue: Japan Pavilion, COP24 Date: December 12, 2018 Host: Ministry of Economy, Trade and Industry Co-hosts: Ministry of the Environment, Japan CCS Co., Ltd. Speakers: Mr. Yukihiro Kawaguchi, Director, Global Environment Partnership Office, Ministry of Economy, Trade and Industry Mr. Tim Dixon, IEAGHG Mr. John Scowcroft, Global CCS Institute Mr. Kensuke Suzuki, Toshiba Energy Systems & Solutions Corporation

Mr. Jiro Tanaka, Japan CCS Co., Ltd.

Moderator: Mr. Antonios Papaspiropoulos, Global CCS Institute

COP24 (The 24th Conference of the Parties to the United Nations Framework Convention on Climate Change) Global CCS Institute launched flagship report "The Global Status of CCS 2018" including a message from the Mayor of Tomakomai (December 11, 2018)





Left: Press release by Global CCS Institute (source: UN Website) Right: Front cover page of "The Global Status of CCS 2018" (source: GCCSI Website)

At the 24th Conference of the Parties (COP24) in Katowice, Poland on December 11, 2018, the Global CCS Institute released its flagship report "Global CCS Report 2018" in a well-attended media conference. The annual report documents the current status of CCS around the world and significant operational milestones over the past 12 months. The report includes a message from Tomakomai Mayor Iwakura which was delivered worldwide.



A ticket to GREATER

ENVIRONMENTAL PROSPERITY

Portrait of Mayor Iwakura

(Page 63 on the report)

Hirofumi Iwakura

Message from Mayor Iwakura

Hirofumi Iwakura, MAYOR Tomakomai, CHAIRMAN Tomakomai CCS Promotion Council

Tomakomai City, Hokkaido, is a large industrial city with a population of 172,000 and a port that is a hub of world trade. The ongoing CCS demonstration project in our city, Tomakomai CCS, is the first of its kind in Japan and a project that has been recognized as essential to the development of Japanese CCS technologies for 2020 and beyond.

Through Tomakomai CCS, more than 200,000 tonnes of CO₂ has been injected offshore since 2017. Such a smooth and faultless operation would not have been possible without extensive cooperation and continuous efforts between stakeholders, such as the Ministry of Economy, Trade and Industry, New Energy and Industrial Technology Development Organization, Japan CCS Co. Ltd and many local industries. As Mayor of Tomakomai, I sincerely respect and admire the persistence and hard work that has made Tomakomai a shining example of industrial, environmental and climate change excellence.

When we were first invited to establish a demonstration test site, the City of Tomakomai established a dedicated Tomakomai CCS Promotion Council made up of local organisations and corporations to ensure that the facility would enjoy smooth progress. To this day, the city continues to facilitate wide cooperation to ensure Tomakomai's success.

Additionally, Tomakomai's CCS Demonstration Centre has attracted thousands of visitors from Japan and around the world, building on the variety of attractions around Tomakomai, including Lake Utonai, designated as wetlands under the Ramsar Convention, and the area's abundant seafood stocks, including Hokkigai (Surf Clam), which has the highest catch quantities in Japan.

We hope you will come to Tomakomai, not only as an industrial tourist to the CCS facility, but also as a guest of Hokkaido and its many great attractions.

May I extend my best wishes to the Global CCS Institute and all stakeholders involved in CCS as a ticket to our greater environmental prosperity.

COP24 Japan Pavilion Side Event "Changing Our Future with CCS!"



Mr. Yukihiro Kawaguchi, Director, Global Environment Partnership Office, Ministry of Economy, Trade and Industry

Government representatives and public figures made presentations at side events in country pavilions. At the Japan Pavilion Side Event "Changing Our Future with CCS!", the event host Mr. Kawaguchi released a clear message to the world.





Mr. Tim Dixon Mr. Jiro Tanaka Mr. Kensuke Suzuki IEAGHG JCCS

Toshiba Energy Systems & Solutions Corporation

JAPAN

CCS Side Event

Global CCS Institute

Date: December 12, 2018 (Host: METI, Co-hosts: MOE/JCCS)

At the Japan Pavilion, Mr. Yukihiro Kawaguchi, Director of Ministry of Economy, Trade and Industry, representing the Japanese government, presented on Japan's efforts in mitigating global warming through CCS with the following message: "Japan will contribute towards the resolution of global climate issues by actively striving for technological innovation and international collaboration on CCS, in accordance with its Plan for Global Warming Countermeasures formulated based on the Paris Agreement. In addition, Japan intends to emphasize the importance of innovation, including CCS at the G20 Summit in 2019 which will be chaired by Japan."

Presentation by Mr. John Scowcroft, Global CCS Institute

∼JAPAN∼ International recognition of Japan's CCS efforts including Tomakomai CCS Demonstration Project



· Leadership CCS position - honing its capability/breaking new ground Tomakomai CCS pushing past 200,000 tonnes of CO₂ safely stored Steady progress by three other facilities (Mikawa - Osaki Coolgen - Saga City Waste Incineration Plant) Japan's commitment to a fully-fledged hydrogen economy – notably HESC · A collaborative approach between industry, government, academia and advocates (like Mayor, Hirofumi Iwakura)

COP24 China Pavilion Side Event



Mr. Al Gore, Former U.S. Vice President

"CCUS: Practices and Perspectives" Host: Ministry of Ecology and Environment, P.R. of China Co-host: Global CCS Institute



The Right Honorable Mark Field MP. UK Minister of State fro Asia and the Pacific at the Foreign & Commonwealth Office



Mr. Yoshihiro Sawada, JCCS