

20 December 2012

Japan Oil, Gas and Metals National Corporation  
INPEX CORPORATION  
JX Nippon Oil & Energy Corporation  
Japan Petroleum Exploration Co., Ltd  
Cosmo Oil Co., Ltd  
NIPPON STEEL & SUMIKIN ENGINEERING CO., LTD  
Chiyoda Corporation

**JAPAN-GTL Process won The Japan Institute of  
Energy Award 2012 in Technical Division**

Japan Oil, Gas and Metals National Corporation (JOGMEC), INPEX CORPORATION, JX Nippon Oil & Energy Corporation, Japan Petroleum Exploration Co., Ltd, Cosmo Oil Co., Ltd, NIPPON STEEL & SUMIKIN ENGINEERING CO., LTD and Chiyoda Corporation (JOGMEC and aforementioned six private sector companies are referred to as “Seven Companies”) won the Japan Institute of Energy (JIE) Award 2012 in Technical Division for the establishment of a JAPAN-GTL (Gas to Liquids) Process.

The JIE was founded in 1921 with the aim of contributing to the progress of science and technology related to fuel or energy, and played a role as the sole authoritative professional society in developing fuel and energy industrial economy. The JIE holds approximately 1,400 members. The awards in Academic Division and in Technical Division are given to an individual or organization who has achieved distinguished result in the area of academic or technical field.

GTL is a technology that converts natural gas into liquid petroleum products, and is considered to be a highly effective method for securing alternative fuel source and diversification of energy supplies. The fuels produced by GTL technology are also expected to be environmentally-friendly clean fuels.

The award was decided from the following three points which are highly appreciated: (i) the three main processes of the JAPAN-GTL (Syngas Production, FT Synthesis, Hydrotreating/Upgrading) were developed based on the technology originated in Japan, (ii) it can contribute to enhancement of energy security for Japan and help Japanese companies acquire oil and natural gas assets overseas, and (iii) the JAPAN-GTL Process is a groundbreaking technology that would, for the first time, allow natural gas containing carbon dioxide to be directly used in a GTL conversion.

It is the second time award-winning for the JAPAN-GTL Process since it won “Distinguished Contribution Awards” at the 77<sup>th</sup> Annual General Meeting of The Japanese Association for Petroleum Technology on 5 June 2012.

Seven Companies conducted JAPAN-GTL Demonstration Test from 2006, and through the demonstration test at a GTL demonstration plant in Niigata City from April 2009 to December 2011, it verified high-grade performances of both GTL processes and catalysts for each process through more than 10,000 hours of demonstration operations, and achieved stable continuous operations for more than 3,000 hours as operation target. Through series of demonstration test, Seven Companies have established the JAPAN-GTL Process as an applicable technology to commercial plants.

Seven Companies will further continue studies of the JAPAN-GTL Process for future commercialization.

1. About the Award

Award: The Japan Institute of Energy Award 2012, Technical Division

Subject of Research: Establishment of a JAPAN-GTL Process

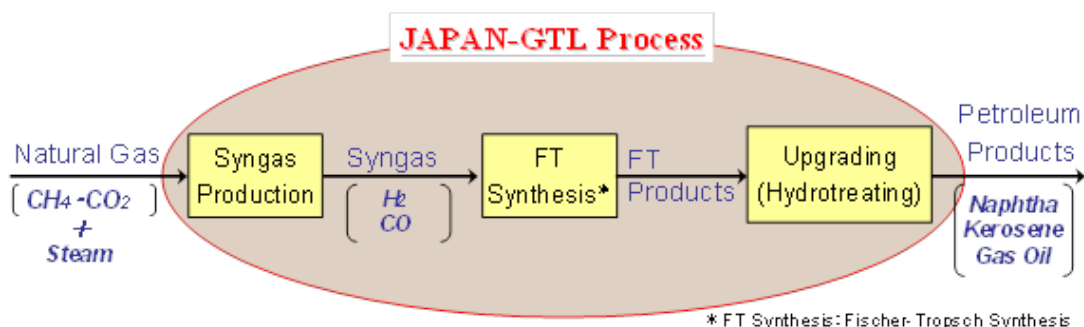
2. The Award Ceremony

Date: February 26 2013

Place: Gakushikaikan, Chiyoda Ward, Tokyo

[Outline of JAPAN-GTL Process]

GTL is short for Gas-To-Liquids. GTL is a technology that uses natural gas as the raw material and produces petroleum products such as naphtha, diesel oil and kerosene through chemical reactions. JAPAN-GTL features in utilizing carbon dioxide as raw material, so that it is a groundbreaking technology that would for the first time ever allow for natural gas containing carbon dioxide to be used directly for conversion.



Main process facilities:

- Syngas Producing Section
- FT (Fischer-Tropsch) synthesis Section
- Upgrading (hydrotreating) Section