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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 Consortium Awarded 2014 ENAA Engineering Commendation Award  
by Engineering Advancement Association of Japan**

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, which comprise the JAPAN-GTL (Gas to Liquids) Consortium, jointly announced today that the consortium was awarded the sixth annual 2014 ENAA Engineering Commendation Award by the Engineering Advancement Association of Japan (ENAA) for its JAPAN-GTL Process, a groundbreaking technology developed in Japan that for the first time allows natural gas containing carbon dioxide to be directly used for conversion into liquid fuels.

The JAPAN-GTL Process involves three key procedures—Syngas Production, FT Synthesis and Upgrading—to convert natural gas into environmentally-friendly liquid hydrocarbons free of sulfur or aromatic components. The consortium expects the technology will be applied commercially, and lead to securing alternative fuel resources and contributing to energy security in Japan.

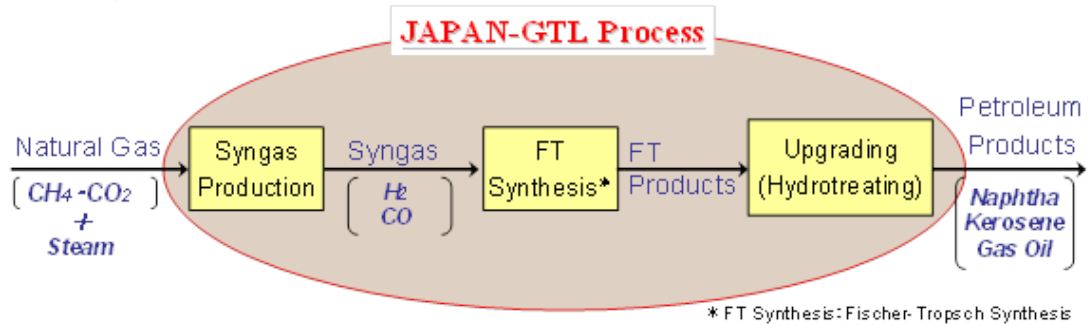
The consortium finalized the JAPAN-GTL Process through a project involving a series of demonstration tests conducted by JOGMEC in cooperation with the above mentioned six private sector companies since fiscal 2006. The project involved more than 10,000 hours of demonstration operations, achieving more than 3,000 hours of stable, continuous operations at a GTL demonstration plant in Niigata City from April 2009 to December 2011. Moving forward, the consortium will proceed with studies on the commercialization of the process.

GTL is a technology to produce liquid hydrocarbons such as naphtha, kerosene and gas oil from natural gas through chemical reactions.

ENAA was established in 1978 by a consortium of companies in the engineering field to promote the advancement of engineering capabilities and technological development, with the endorsement of the Ministry of International Trade and Industry (MITI) and cooperation of the public and private sectors, as well as academia. MITI is the precursor of the Ministry of Economy, Trade and Industry (METI).

[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

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