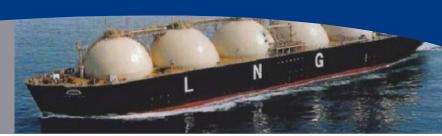


Towards a Flexible and More Liquid LNG Market



LNG Producer-Consumer Conference 2017

Takamichi HAMADA
President & CEO
Tokyo Commodity Exchange, Inc.

October 18th 2017

JAPAN OTC EXCHANGE, Inc.

About TOCOM & JAPAN OTC EXCHANGE (JOE)

JOE is a TOCOM wholly-owned subsidiary, established with the aim of developing an LNG price index based on actual demand and supply, in accordance with Japanese government policy.

History of TOCOM & JOE

Feb. 1951	Tokyo Textile Exchange established.
Nov. 1984	Tokyo Textile Exchange re-established as TOCOM.
Nov. 2013	JOE established, based on recommendations from the Council on LNG Futures Market, held by the Ministry of Economy, Trade and Industry (METI)
Sep. 2014	JOE launched DES Japan LNG market.
Mar. 2016	JOE launched CME-cleared DES Japan LNG contract
Nov. 2016	TOCOM signed MOU with S&P Global Platts (Platts) on cooperation for LNG market development.
Apr. 2017	JOE launched physical LNG contracts, based on recommendations made in METI's "Strategy for LNG Market Development", and JKM swap based on MOU with Platts.

Trading Member of JOE (as of October 2017)

Category	Electric Power	Gas	Trading	Oil & Gas	Financial	Total
Companies	9	4	9	3	2	27



TOCOM Cooperation with Price Reporting Agencies

JOE provides on-line trading platform for physical and swap trades and cooperates with PRAs to develop reliable price indices with the support of Japanese government.

Strategy for LNG Market Development - (METI, May 2016)

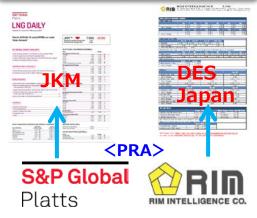
"The government supports the Tokyo Commodity Exchange in strengthening its matching and price reporting functions." (Executive Summary)

Order Matching & Price Reporting to PRAs



Settlement of Transactions.

Price Assessment & Index Publication



Trade Information is shared by PRAs as a reference for their price assessments.

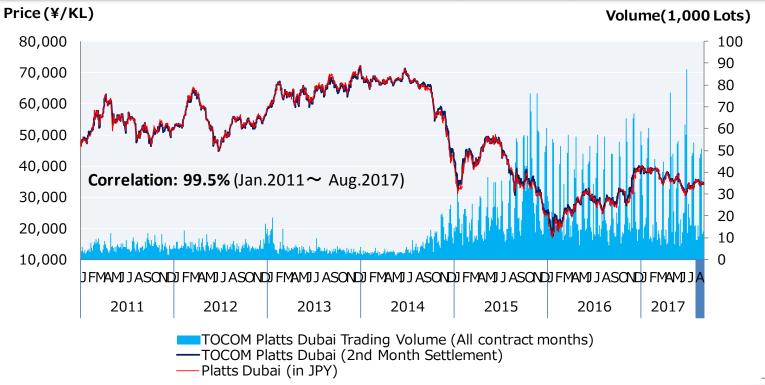


Platts-TOCOM Cooperation for Developing Asian Energy Market 4

Liquid TOCOM Dubai (Platts) futures and transparent Platts' Dubai assessment are closely linked and mutually supplementing each other to establish reliable benchmark price for Middle East crude oil.

→ Could serve as a model for developing LNG benchmark price through PRA-exchange cooperation.

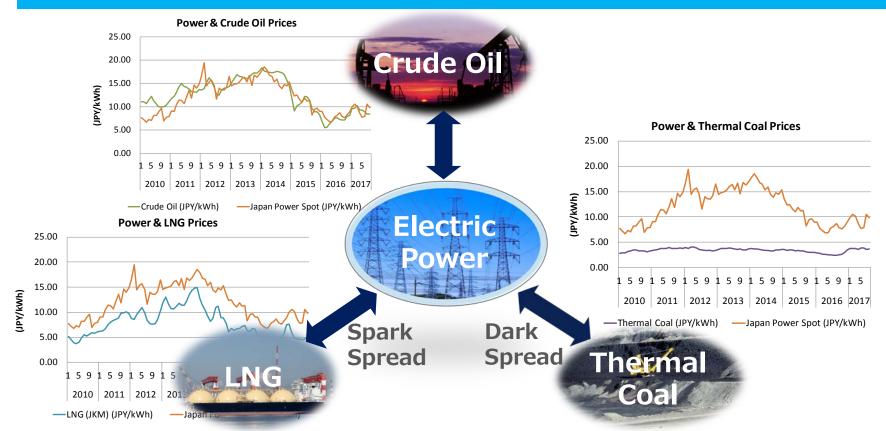
Platts Dubai & TOCOM Platts Dubai Futures (2nd Month) & Trading Volume





TOCOM Plan to Develop Comprehensive Energy Market

Japanese energy industry reform and TOCOM's planned "comprehensive energy market" encompassing electricity, existing oil, LNG and thermal coal is expected to add liquidity to the LNG market, thereby contributing to the development of LNG benchmark price.



*All fuel prices are converted into JPY/kWh basis, taking generation efficiency into account. *LNG price is the monthly average of Platts JKM. *Crude Oil & thermal coal prices are Japanese import's monthly average price.

(Source: S&P Global Platts, JEPX, IEEJ, Ministry of Finance, Japan)

