

The role of LNG In the Global LNG Market

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The transition to more flexible market is under way

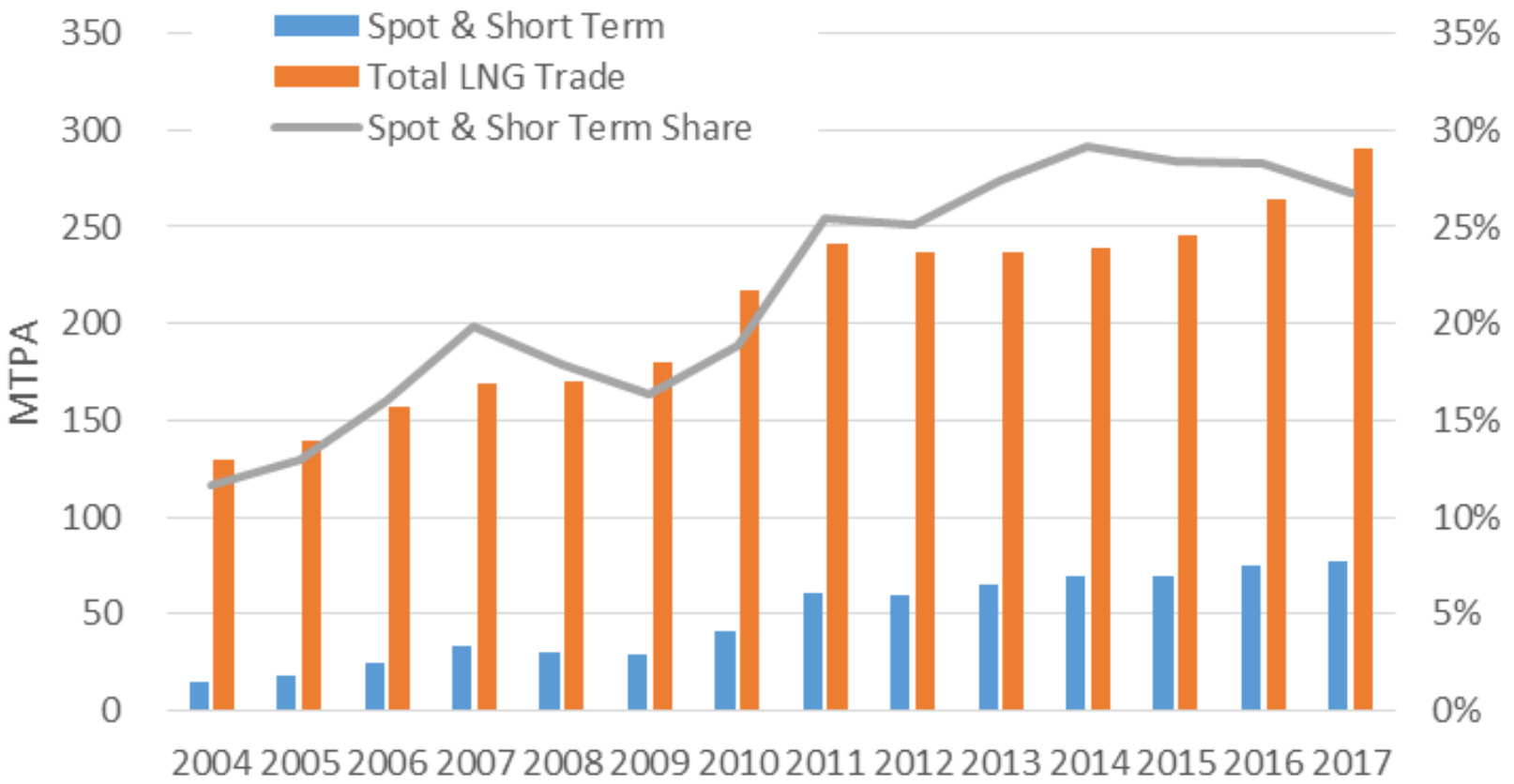


Spot and short-term LNG trade volumes and share, 2004 - 2017

【 2017 】 Global LNG Imports : 289 million ton

	'00	'17
Importing Countries	: 10	<u>40</u>
Exporting Countries	: 11	19

LNG Trade (World)





Change of the industry structure



Trading hub



US Shale



Brown Field Projects



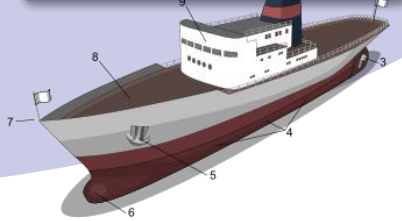
New Indexation



LNG Fuel

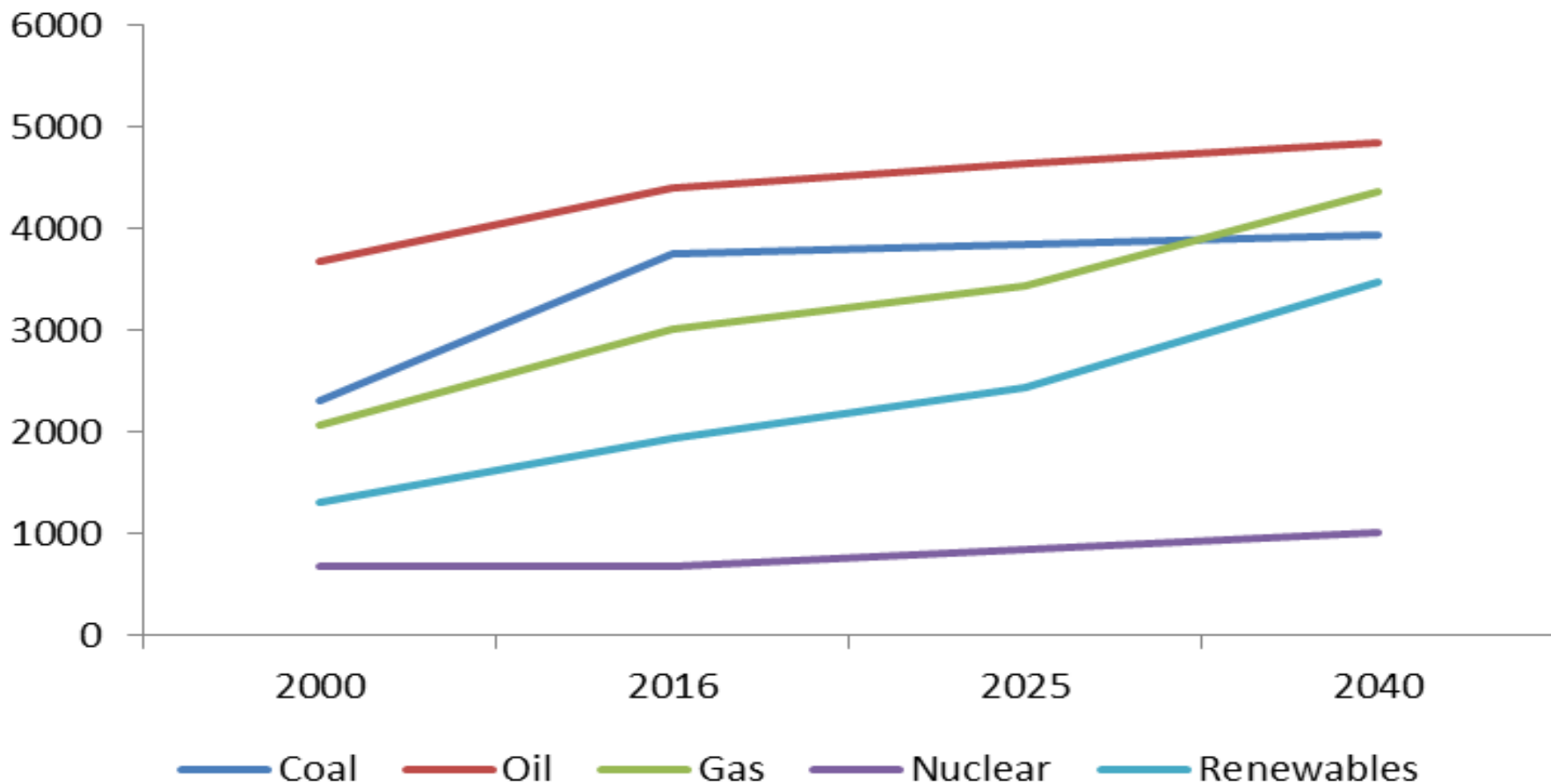


FLNG & FSRU





World primary Energy demand by 2040



While oil and coal fall back, natural gas and renewables are expected to ramp up strongly by 2040.



Global shifts in energy markets



The oil and gas industry is in a transition period as it strives to respond to environmental changes such as the shift to Decarbonization, Digitalization and Decentralization (3D).



Hydrocarbon

Natural Gas
+
Renewables



Closed Innovation

Open
Innovation



Upstream

Demand
Creation

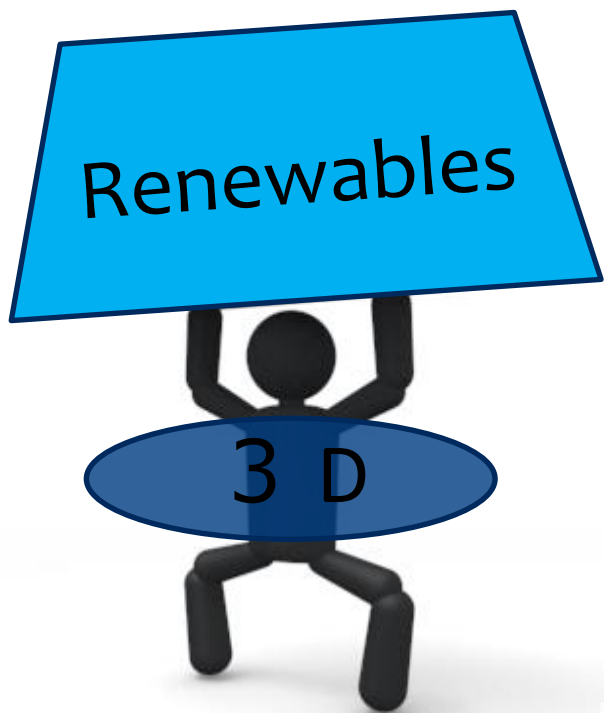




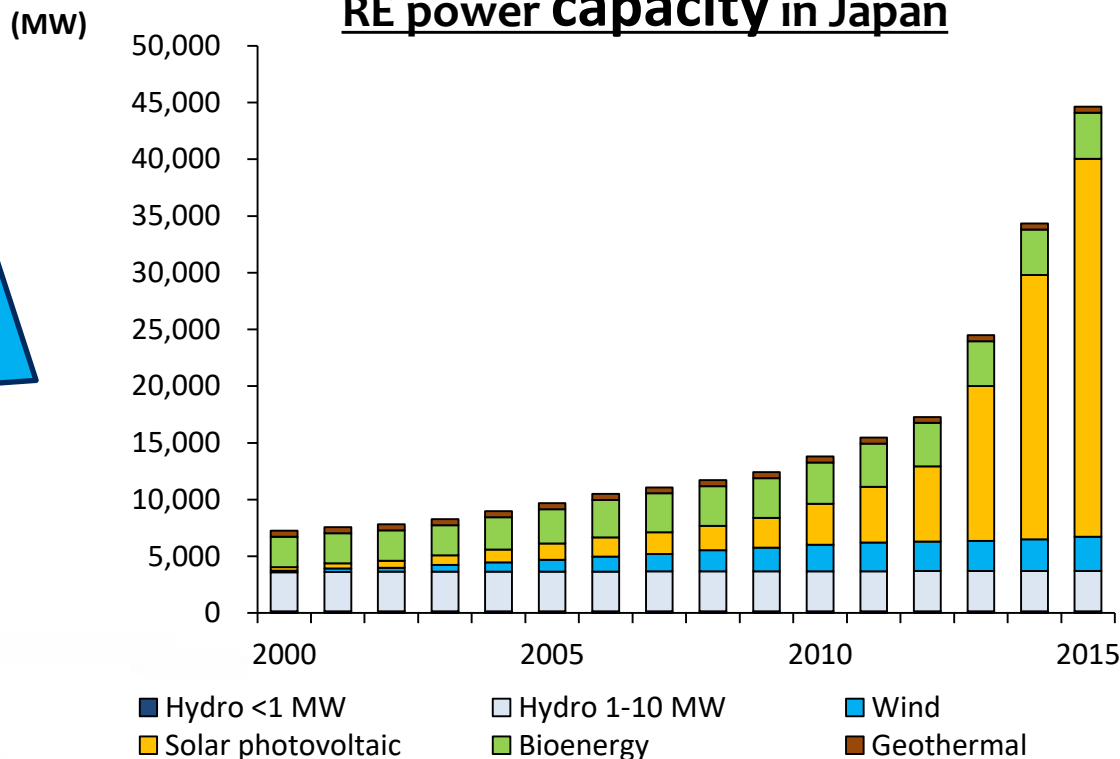
Supporting the growth of renewable energy



- Natural gas plays an important role to support the fluctuating output of unstable renewable energy



RE power capacity in Japan



Natural Gas



Coal

Source: IRENA Renewable Electricity Capacity and Generation Statistics, July 2016



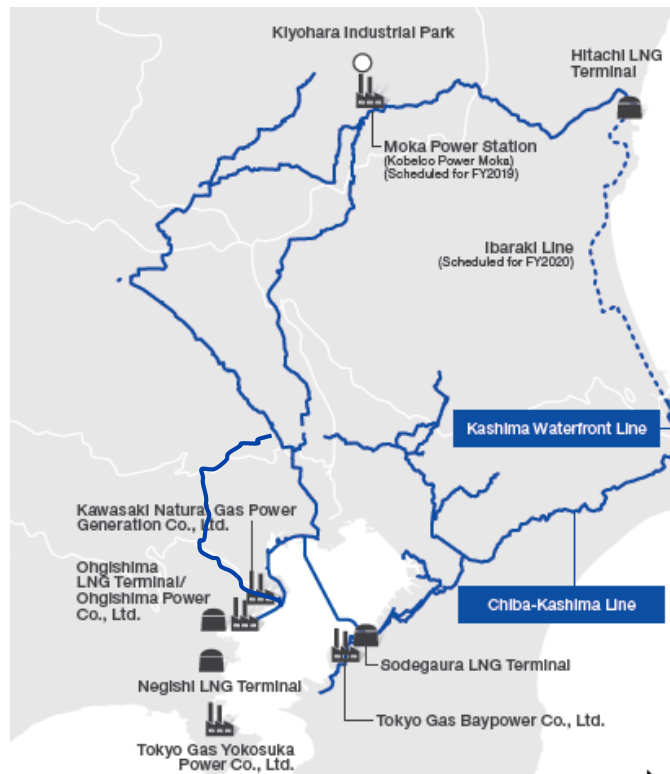
Our Business Development



Construction of high pressure pipeline



Hitachi LNG Terminal



Decentralized Energy System in Tamachi



Solar Panel



CHP



Control Center



Kiyohara Industrial Park



LNG bunkering in Yokohama

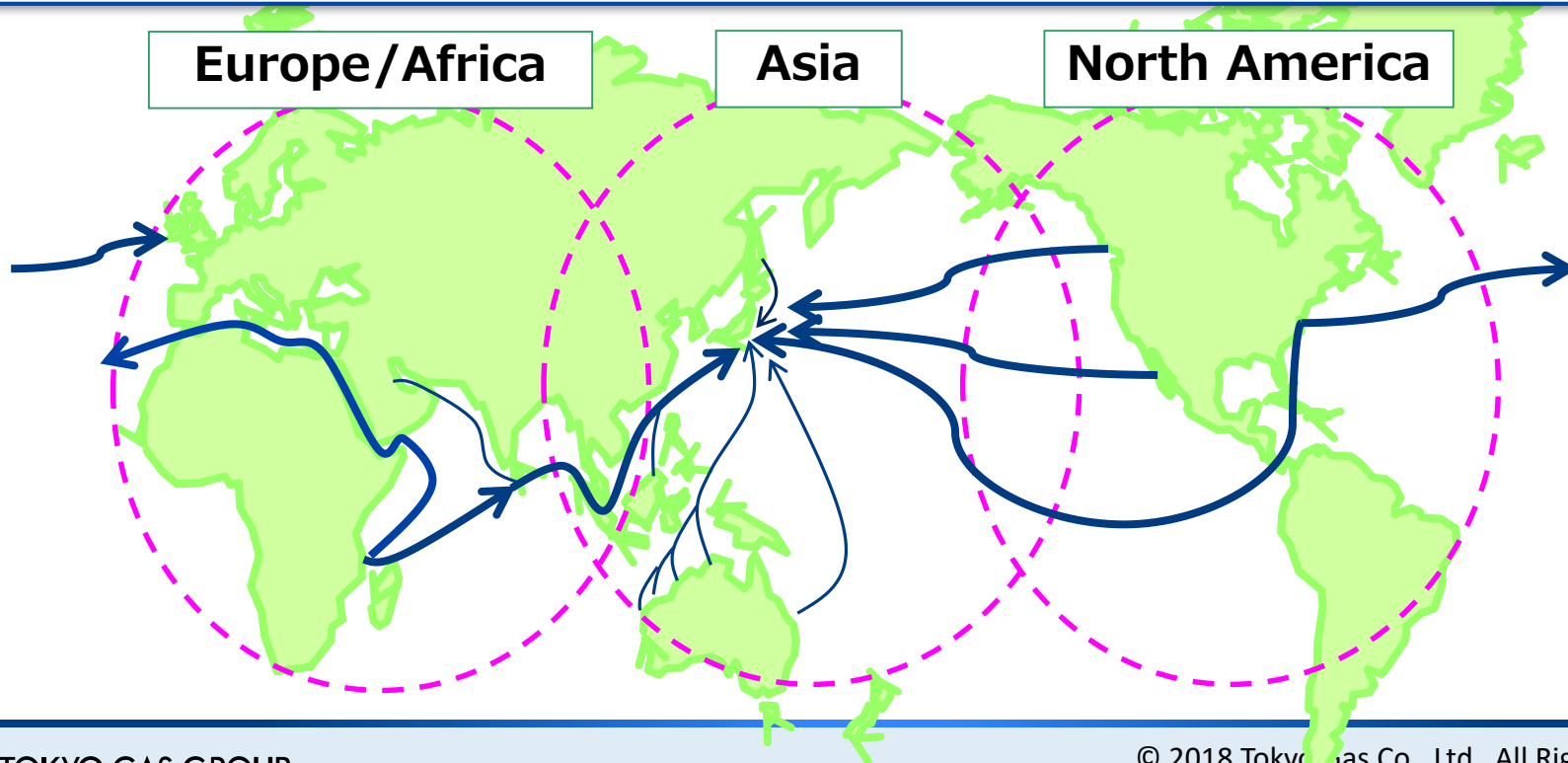


Tokyo Gas's LNG Procurement



Implementing innovative LNG contracts and contributing to the development of new LNG projects as a foundation buyer.

- 2016/11 Signed MOU with Centrica for mutual LNG optimization
- 2018/6 Signed HOA to purchase LNG from Mozambique LNG Project
- 2018/10 Signed HOA to purchase LNG from LNG Canada Project
- 2018/11 Signed HOA to purchase LNG from Energia Costa Azul LNG Project
- 2018/11 Signed MOU with RWE for mutual LNG optimization

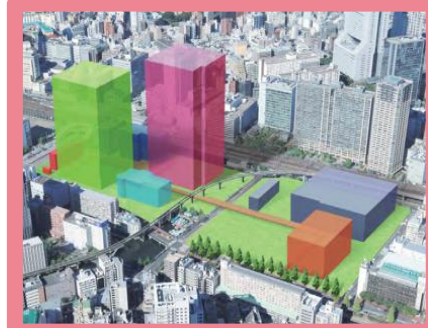




Expanding Our Experiences into Global Market



Decentralized Energy System



Locally generated and locally used energy system using network of electricity and heat, renewables and digital technology



Energy Solution Service



Entered in energy service business for factories in Malaysia (2014)

Power Generation (IPP)



Entered in gas-fired power generation business in Thailand

Gas Distribution



Entered in city gas distribution business (2016) in Malaysia (1992)

Regasification Terminal



Launched PMC business in Thailand between PTT LNG for expansion work of regas terminal (2013)

Extensive use of natural gas collaborating with renewables and digital technology



Thank you very much for your attention



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