

# OVERSEAS BUSINESS

## Outline

We have expanded and increased overseas bases and staff, and have participated in the LNG or natural gas related business projects in Australia, North America, and Southeast Asia, all in order to make overseas business another major earnings source of the Tokyo Gas Group, as indicated in the Challenge 2020 Vision. Looking ahead, the newly-established Global Business Division in April 2017 is spearheading efforts for further business development, constructing of a new portfolio having stronger resistance to undesirable effects of changes in energy prices, and for promotion of adding more value in the existing businesses.

Net sales	Number of participating projects
<b>¥31.9 billion</b>	<b>16</b>
FY2016	Segment assets ¥270.7 billion (as of March 31, 2017)

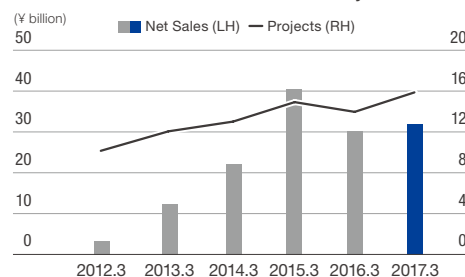
## Strengths

- Know-how in the midstream and downstream businesses accumulated in Japan
- Global network established through activities such as material procurement and business participation

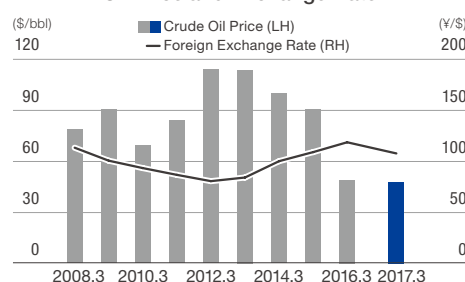
## Risks

- Business operation can be stalled or expense burden may rise, in response to laws and regulations, or business practices, inherent to each country
- Fluctuation in crude oil/gas prices and foreign exchange rates in the upstream business

## Net Sales and Number of Projects



## Oil Price and Exchange Rate



## Forming an LNG value chain

### North America

We are focusing on entry opportunities in the upstream, gas-fired thermal power generation, and gas and electricity supply areas in North America. We envision forming a North America LNG value chain, in which synergies can be generated among businesses, such as by stably supplying gas from one of our upstream projects to our operations in gas-fired thermal power generation and gas supply.

#### Upstream Business

Monitoring commodity price trends and carefully estimating the productivity and reserves of gas fields will enable us to form appropriate alliances with experienced operators and invest in prime assets. Along these lines, in May 2017 we acquired rights in a gas development operating company in Texas.

#### Midstream- and Downstream Business

When planning gas-fired power generation we will continue to use well-defined criteria to select projects in which to participate, giving due consideration to demand and supply of electricity, competition with other power sources, regulations and business environment by each regional government. We have so far participated in two gas power generation business in the East Coast, where the scale of demand is huge. In gas supply business, we seek to participate in business, in which we can leverage our Group's strength, such as demand development.

Project Name	Start of Participation	Tokyo Gas Interests
U.S.A. Barnett shale gas development	Mar. 2013	25%
U.S.A. Eagle Ford shale gas development	Jun. 2016	25%
U.S.A. East Texas gas development business	May 2017	30%

Project Name	Start of Participation	Tokyo Gas Interests
U.S.A. Natural gas-fired power plant business in New York State (Empire Power Plant)	Oct. 2016	25%
U.S.A. Natural gas-fired power plant business in Pennsylvania (Birdsboro Power Plant)	Apr. 2017	33.33%

## Focus on operation and management of existing projects

### Australia

We have invested in five projects in Australia, which has grown as a major LNG supply base to the Far East. Four of these LNG projects are in operation today. Including the Ichthys Project, we will continue to focus on operation and management of those projects, with creation of maximal value in mind.

#### Upstream Business

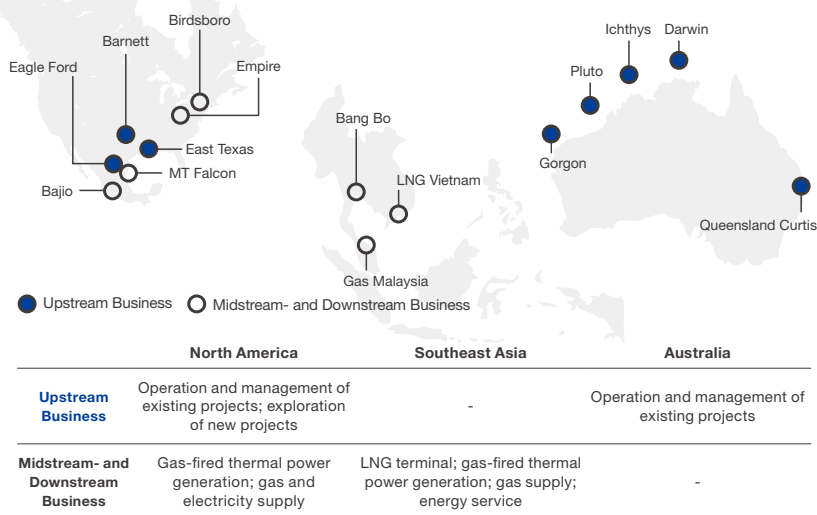
Four LNG projects that have already begun operation in Australia, are proceeding smoothly. We will continue to focus on operation and management of the five projects, including the Ichthys Project still in preparation, to maximize their value.



## Accelerating global development

In the last 12 months, the Tokyo Gas Group decided to participate in six projects in North America, where various entry opportunities are available, and Southeast Asia, where use of natural gas is expanding.

Going forward, in addition to new projects mainly in North America and Southeast Asia, we will promote risk management, partly by using past experiences, and add more business values to raise and stabilize earnings.



### Southeast Asia

In Southeast Asia where a greater use of natural gas has been driven by a national policy and high growth of the energy market is projected, we seek to participate in LNG terminal, gas-fired thermal power generation, gas supply, and energy service businesses. In addition to opening offices in Indonesia, Thailand, and Vietnam in 2015, we established a representative office in the Philippines in April 2017. Our ultimate target is to form a Southeast Asia LNG value chain.

**Midstream- and Downstream Business** By building a relationship with local governments and through alliances with local companies, we intend to increase our participation in midstream- and downstream businesses, while closely monitoring changes in business environment, including relevant policies and regulations. In October 2016, we participated in a natural gas-fired power generation business in Thailand.

### Tokyo Gas Group's Bases in Southeast Asia



Project Name	Start of Participation	Tokyo Gas Interests
Thailand Bang Bo Power Plant	Oct. 2016	28%

Project Name	LNG Production Capacity (Million tons / year)	Start of Participation	Tokyo Gas Interest (Equity Stake)	Start of Production (Operation)
Darwin	3.0	2003	3.07%	Jan. 2006
Pluto	4.7	2008	5.00%	Apr. 2012
Gorgon	15.6	2009	1.00%	Mar. 2016
Queensland Curtis	8.5	2011	1.25% (Gas Field) / 2.50% (No. 2 Liquefaction Plant)	Dec. 2014
Ichthys	8.9	2012	1.575%	By March 2018 (Plan)