

KOGAS Investment in Australia

(NT Business round table)

Better Energy, Better World

JUL 2017



KOGAS Overview(Business Scope)

Domestic Business Stable Profitability



LNG Purchasing

- World 2nd largest LNG buyer



Construction & Operation of LNG Storage Tanks and nationwide pipelines



Supply of Natural Gas

- City Gas and Power Sector

Overseas Business Growth Opportunity



Exploration and Production(E&P) Mozambique, Iraq, Myanmar, etc.

- Engines for Business Expansion & Growth
- 25 Project in 13 Countries(As of Sep, 2016)

KOGAS Investment in Australia

KOGAS Investments and LNG Purchases

▶ Project Investments

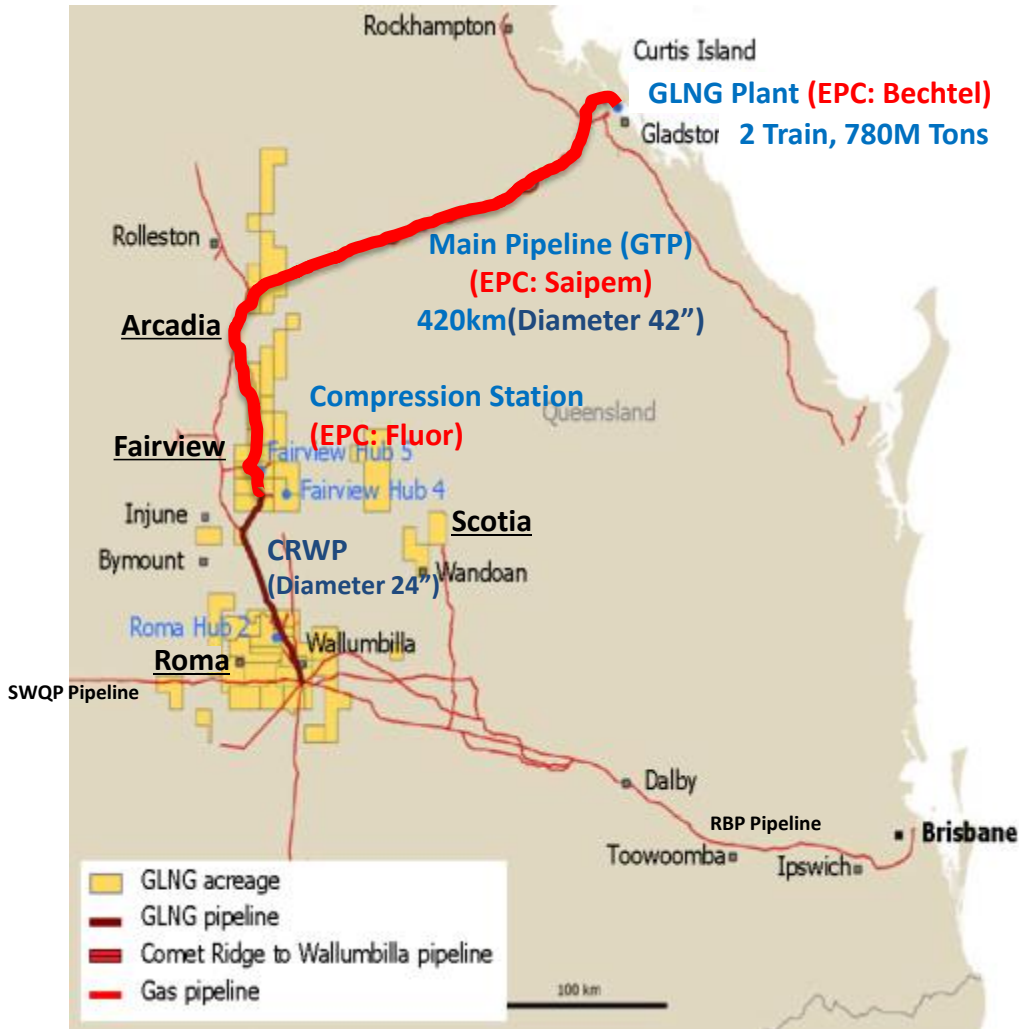
| GLNG Project | Prelude Project |
|--|--|
| <ul style="list-style-type: none">▪ Entry : February 2011▪ Interest Held : 15%▪ Project window : 2011-2044 | <ul style="list-style-type: none">▪ Entry: March 2012▪ Interest Held : 10%▪ Project window : 2011-2042 |





▶ LNG Purchases : around 10 million tons of LNG expected from 4 projects

| GLNG Project (Under Construction) | Prelude Project (Under Construction) | Ichthys Project (Under Construction) | NWS Project (Operational) |
|--|---|--|--|
| <ul style="list-style-type: none">➢ 3.5M tons/year➢ 2015-2034➢ FOB | <ul style="list-style-type: none">➢ 3.64M tons/year➢ 2015-2038➢ DES | <ul style="list-style-type: none">➢ 2M tons/year➢ 2018-2031➢ DES | <ul style="list-style-type: none">➢ 0.5M tons/year➢ 2003-2016➢ DES |

KOGAS Investment in Australia

GLNG Project



| | | |
|-----------------------------|--|---|
| Partners | Santos 30.0% (Operator) |  |
| | Petronas 27.5% |  |
| | TOTAL 27.5% |  |
| | KOGAS 15% |  |
| Assets | Fairview, Roma, Arcadia, Scotia | |
| Pipeline | 420km(42 inch) | |
| Plant | 7.8 MTPA | |
| Capex | USD \$18.5bn | |
| 1st Cargo | Train 1 : 2H 2015 Train 2 : 1H 2016 | |
| SPA | KOGAS 3.5 Petronas 3.5(MTPA) | |

SWQP : South West Gas Pipeline

RBP : Roma to Brisbane Pipeline

CRWP : Comet Ridge Wallumbilla Pipeline

KOGAS Investment in Australia

Prelude FLNG project

| | |
|------------------------|--|
| Location | Western Australia |
| Gas Field | Prelude |
| Joint Venture Partners | KOGAS : 10% Shell(Operator) : 67.5% Inpex : 17.5% OPIC : 5% |
| EPCi Contractor | Technip / Samsung Consortium("TSC") |
| Production Capacity | LNG : 3.6mtpa Condensate : 1.3mtpa LPG : 0.4mtpa |
| Construction Period | 2011 ~ 2017 |



Length : 488m, Width : 74m

Why Australia?

- **Safe Political Environment**

- **Strong, established democracy with rule of law**

- **Open, Stable Economy**

- **3.3% Yearly Growth Since 1990**
- **Average inflation of around 2.5% for the past 15 years**
- **A major economy in Asia-Pacific Region**

- **Enhance Stability**

- **Stable supply of natural gas for the Korean domestic market**
- **Diversification of gas supply portfolio**

Australian LNG Projects

| Status | Project | Capacity (MTPA) | Start-up | Location |
|--------------------------------|-----------------------|-----------------|----------|----------|
| Operational (7) | North West Shelf | 17.6 | 1989 | Western |
| | Darwin | 3.6 | 2006 | Northern |
| | Pluto | 4.8 | 2012 | Western |
| | QCLNG | 8.5 | 2014 | Eastern |
| | GLNG | 7.8 | 2015 | Eastern |
| | Gorgon | 15.6 | 2016 | Western |
| | Australia Pacific LNG | 9.0 | 2016 | Eastern |
| Under Construction (3) | Wheatstone | 8.9 | 2017 | Western |
| | Ichthys | 8.9 | 2018 | Western |
| | Prelude | 3.6 | 2018 | Western |
| Possible or Speculative (3) | Bonaparte | 2.0 | 2018 | Western |
| | Scarborough | 6.0 | 2028 | Western |
| | Cash Maple FLNG | 2.0 | TBD | Northern |

Australian Domestic Gas Security Mechanism (ADGSM)

○ Key Elements

- Export control implemented under Customs Act 1901
- Regulation introduced: 1 July 2017
- Minister for Resources to declare 'shortfall'
- Declaration at the discretion of the Minister in consultation

○ Concerns

- Discretionary
- No consideration for existing contracts

○ Moving Forward

- KOGAS understands Australian Concerns
- Industry Solution

Closing Remarks

Thank You!