



## Submission No 14

### **Inquiry into Australia's Relations with the Republic of Korea; and Developments on the Korean Peninsula**

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**North West Shelf Australia LNG Pty Ltd**

**SUBMISSION TO THE JOINT STANDING COMMITTEE ON  
FOREIGN AFFAIRS, DEFENCE AND TRADE  
FOREIGN AFFAIRS SUB COMMITTEE**

**“BUILDING AUSTRALIA’S RELATIONS WITH KOREA”**

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## INTRODUCTION

North West Shelf Australia LNG Pty Ltd (“NWSALNG”) is pleased to make this submission to the inquiry being conducted by Parliament’s Foreign Affairs Sub Committee into Australia’s relationship with the Republic of Korea; and developments on the Korean peninsula.

NWSALNG is a marketing services organisation based in Perth and owned by the six participants of the North West Shelf Venture (“NWSV”), Australia’s only operating liquefied natural gas (“LNG”) production and export project. This submission is made in the context of the NWSV’s experience as a supplier of LNG to South Korea and NWSALNG’s marketing activities in the South Korean market through its representative office in Seoul. NWSALNG also provides marketing services for existing and new LNG customers in the Asia-Pacific region and has offices in Tokyo, Japan and Beijing, China.

The focus of this submission is the strategic opportunity to expand Australia’s LNG exports to South Korea, building on the NWSV’s reputation as a competitive, reliable and secure supplier to multiple markets. The NWSV has a 15-year plus history of reliable supply to Japan and was successful in securing China’s first-ever long-term LNG contract, the A\$25 billion Guangdong contract, in 2002, as well as the first-ever term contract to supply LNG to South Korea in 2003.

## EXECUTIVE SUMMARY

- **South Korea is the world’s 5<sup>th</sup> largest net oil importer and 2<sup>nd</sup> largest LNG importer – making it a key player in global energy markets driven by a strong economy and limited domestic resources.**
- **Australia has a strong and diverse trading relationship with South Korea, with bilateral trade reaching A\$14.1 billion last year. Australia has a solid profile in South Korea, which is its 4<sup>th</sup> largest trading partner, with the potential to further significantly expand this relationship.**
- **While LNG currently represents a relatively small proportion of this trade, Australia’s NWSV has to date supplied some 23 LNG cargoes to South Korea since December 1993 and has a strong relationship with South Korea’s sole LNG importer, Korea Gas Corporation (KOGAS).**
- **In 2003 the NWSV achieved a key breakthrough by securing its first-ever term contract in South Korea, a A\$1 billion contract to supply over 3 million tonnes of LNG over a 7-year period.**
- **The outlook for LNG demand growth in South Korea is extremely robust, underpinned by its strong economy, a well-established infrastructure for city gas reticulation, and a desire to reduce dependence on imported oil and switch to cleaner energy.**
- **Australia is well placed to build significantly on its position as an existing LNG supplier to South Korea and secure new business opportunities, particularly given forecasts indicating a significant shortfall in LNG supply towards the end of this decade.**

## SOUTH KOREA IN CONTEXT: WORLD LNG & THE ASIA-PACIFIC MARKET

The NWSV currently exports approximately 12 million tonnes per annum (“mtpa”) of LNG, making it a substantial player in the global LNG industry – a complex and highly capital intensive international trading network involving around 13 supplier countries and a similar number of importing countries. LNG is formed when methane is super-cooled so that it condenses to a liquid, a fraction of its volume in the gaseous state, enabling it to be transported over distances too great or expensive for pipelines. This has made the global LNG trade one of the fastest growing sectors of the world energy industry.

Globally, natural gas consumption is forecast to double by 2030 to account for roughly one-third of world primary energy consumption, with a quantum increase occurring in the energy-hungry developing world. The world LNG trade has grown rapidly from its inception in 1959 to reach 100mtpa in 2000 – and accelerating further to 135mtpa by 2004 with projections that it will increase to 225-250mtpa by 2010. NWSALNG was formed to capitalise on Australia’s strategic advantages as a leading LNG supplier in the Asia-Pacific by capturing a greater share of the expanding regional market.

South Korea is one of three established LNG markets in the Asia-Pacific region which – together with Japan and Taiwan – imported some 86 million tonnes last year, accounting for 66% of global demand.

According to projections, LNG demand in the Asia-Pacific will increase to 120mtpa by 2010 (excluding India). The region's growth is underpinned by the emergence of new markets in China and the West Coast of North America, combined with strong growth in established markets such as South Korea. With just 21mtpa of new capacity currently under construction in the region and due to come on stream by the end of the decade, there is a concern that a growing supply shortfall will emerge towards the end of this decade. By 2015, this shortfall could be as high as 30mtpa, requiring the construction of several new projects.

#### **AUSTRALIA'S NORTH WEST SHELF VENTURE**

The NWSV, located near Karratha 1,500km north of Perth in Western Australia, has established a strong brand position in the Asia-Pacific LNG market. The NWSV commenced LNG exports in 1989 supplying foundation customers in Japan, with an expansion to 7.5mtpa completed in 1992. The NWSV has an excellent track record of reliability and security of supply, with over 1,700 cargoes delivered to date without a single delivery missed.

The NWSV infrastructure comprises extensive offshore facilities (two gas production platforms), four onshore LNG liquefaction trains, domestic gas production units, shipping capacity (nine LNG carriers), LNG storage tanks and a load-out jetty – representing a total investment to date of some A\$14 billion. A major expansion was completed last year through the addition of the fourth LNG processing train and second offshore gas trunkline, increasing the complex's total LNG production capacity by 56% to almost 12mtpa – ranking Australia as the third largest LNG supplier in the Asia-Pacific. A Final Investment Decision for a further major expansion through the construction of a fifth LNG train, which would increase export capacity to over 16mtpa, is expected during the first half of 2005.

The coastline of northern Western Australia is estimated to contain well over 100 trillion cubic feet of natural gas resources – sufficient to underpin several long-term LNG export projects the size of the NWSV.

#### **ECONOMIC DEVELOPMENTS IN SOUTH KOREA: THE STRATEGIC ENERGY EQUATION**

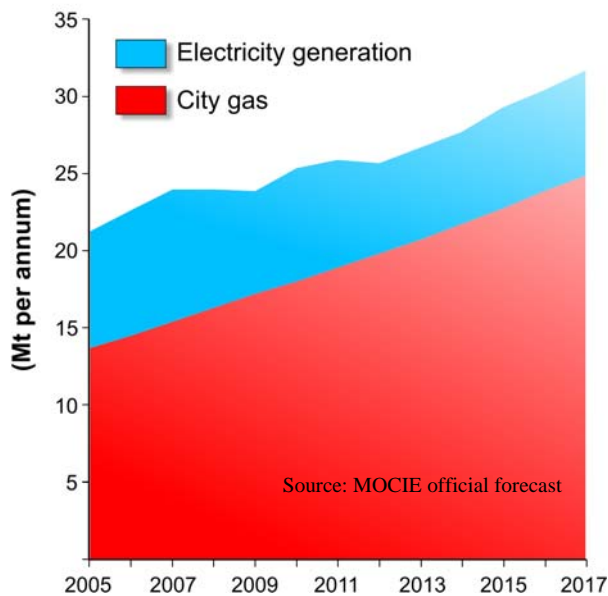
Despite setbacks during the 1997/8 financial crisis and a brief recession in 2003, South Korea has enjoyed strong economic growth over several decades (GDP growth ranging from 3.1-8.5% in the past five years), and is today the world's 11<sup>th</sup> largest economy. With heavily congested infrastructure, it is also one of the world's most densely populated countries and has a high dependence on imported energy, particularly oil, as it is relatively poorly endowed with natural resources. Oil accounts for 54% of South Korea's primary energy mix, making air pollution a key issue. Emissions of carbon dioxide are estimated to have more than doubled between 1980-1996, reflecting the country's rapid growth and the increased number of vehicles on its roads.

The oil shocks of the 1970s prompted South Korea's Government to switch to alternative fuel sources, including imported LNG following the establishment of the State-owned KOGAS, which commenced LNG imports in 1986. Since then, South Korea has rapidly become the world's second largest LNG importer and the fastest-growing LNG market in the world, with KOGAS today the world's single largest corporate buyer of LNG. Natural gas accounts for around 11% of South Korea's primary energy consumption, predominantly imported LNG but with a small contribution from the offshore Donghae-1 gas field.

LNG imports have increased on average by 19% per year to reach 22.1 million tonnes last year, sourced from a diversified group of Middle Eastern and Asia-Pacific suppliers including Qatar, Indonesia, Malaysia, Australia, Brunei and Oman. Existing LNG terminals at Pyongtaek and Incheon are being expanded, and a new privately owned terminal is due for completion at Kwangyang.

Strong import growth looks set to continue for the foreseeable future, with South Korea emerging in recent years as a major buyer of additional volumes of both short-term and long-term LNG to meet its surging demand, particularly during its peak winter-time demand periods. South Korea's LNG demand profile is skewed by seasonal demand swings, with gas demand surging in winter from its summertime average of around 1mtpa per month to as high as 2.6mtpa per month. Around 70% of Korea's imported LNG is consumed during the winter. Some 61% of LNG imports are consumed as piped gas sales to 32 city gas companies through a well-established reticulation network, while the balance is used for power generation.

### LNG Consumption by Sector



South Korea's energy ministry has predicted that LNG demand will increase by an average of 3.9% per annum until 2017, reaching 31.7 million tonnes by that year. Australia's ABARE predicts that South Korea's LNG demand will exceed 32mtpa by 2015, with a growing supply shortfall emerging by 2007 and accelerating after 2010 as existing 'legacy' LNG contracts expire.

These forecasts are based on the assumption that LNG deliveries will ramp up smoothly under new contracts; that LNG demand for power generation will temporarily decline between 2007 and 2010; and that pipeline gas will be available by the end of the decade through the Irkutsk pipeline, which would bring gas from Eastern Siberia through China. Any change to these assumptions could make the LNG supply shortfall considerably larger, potentially compromising South Korea's energy security.

South Korea's requirement for new LNG contracts has become even more pressing in recent years with the delays in its LNG procurement due to uncertainties surrounding the privatisation

program for KOGAS. Following opposition from labour unions, the reform program initiated in the late 1990s has effectively stalled, with plans to split KOGAS now all but abandoned and the focus rather on the limited introduction of private companies to the wholesale LNG import market.

In the absence of new long-term contracts, KOGAS had been forced to resort to a major program of short-term purchases to meet soaring winter-time gas demand, as well as medium-term, winter-oriented contracts such as the one secured by the NWSV in 2003. This situation was finally resolved last year when the South Korean Government sanctioned KOGAS to issue tenders for three long-term contracts totalling up to 6mtpa (starting in 2008), together with approximately 1.5mtpa of short-term winter-oriented contracts. These tenders were recently finalized with KOGAS selecting LNG projects in Russia, Malaysia and Yemen as suppliers for the long-term contracts and Qatar and Malaysia for the short-term, winter-oriented contracts.

While the NWSV was disappointed that it was not selected in this round of tenders, the Venture is continuing to seek opportunities to meet the energy needs of South Korea into the future and to build on its strong relationship with KOGAS and its excellent track record for reliability and security of LNG supply.

### AUSTRALIA'S A\$1 BILLION KOREAN LNG BREAKTHROUGH

NWSALNG was approached by KOGAS in September 2002 to submit a proposal for a mid-term LNG supply contract. Against stiff international competition, NWSALNG was selected to supply 3mtpa of LNG over a 7-year period (worth over A\$1 billion) commencing in late 2003. A Letter of Intent for this first term LNG supply contract between Australia and South Korea was signed in Perth by senior representatives of KOGAS and the NWSV in January 2003. This was followed in March 2003 by the finalisation of a Sale and Purchase Agreement (SPA) between KOGAS and the NWSV LNG Sellers.

The first LNG cargo departed from Australia on 13 November 2003, with volumes building to 0.5mtpa in 2004. The LNG is delivered to South Korea on an ex-ship basis, the first such long-term contract outside of the NWSV's long-term contracts with its Japanese customers – representing a key milestone for NWSALNG's marketing efforts in the Asia-Pacific region. It followed an agreement signed in November 2002 for the sale of four short-term cargoes to South Korea (totalling 220,000 tonnes of LNG) in 2002/03. Previously, the NWSV had supplied a total of six spot cargoes to Korea since its inception in 1989.

## RECENT TRENDS IN TRADE & INVESTMENT BETWEEN SOUTH KOREA AND AUSTRALIA

Australia's trading relationship with South Korea developed rapidly during the 1960s as South Korea's economy rapidly industrialised, requiring large amounts of imported raw materials and energy. The two countries now have a strong, diversified and wide-ranging bilateral trade that reached A\$14.1 billion in 2004. South Korea is Australia's 4<sup>th</sup> largest trading partner and export market, while Australia is South Korea's 7<sup>th</sup> largest trading partner and 6<sup>th</sup> largest import source, giving Australia a solid profile in South Korea.

The diversity of this bilateral trade – covering a range of commodities including coal, petroleum, iron ore, wheat, beef and sugar – provides a strong platform for further increasing Australia's LNG exports to South Korea. The potential to further expand trade and investment opportunities between Australia and South Korea in the field of energy and mineral resources was recognised in a bilateral cooperation agreement, an "Energy and Resources Cooperation Treaty" signed in August 2004. This is one of only three such bilateral treaties that South Korea has signed to date with any country.

In order to boost its business presence and strategic marketing support capability in South Korea, NWSALNG opened a representative office in Seoul in October 2004. NWSALNG acknowledges the support of the Australian Government and diplomatic network in South Korea in providing support for its marketing activities. Australia's Government and diplomatic representatives have excellent personal relationships with their South Korean counterparts, and this level of support and access is important to Australian energy and resource companies, given that South Korea's energy sector is dominated by State-owned enterprises.

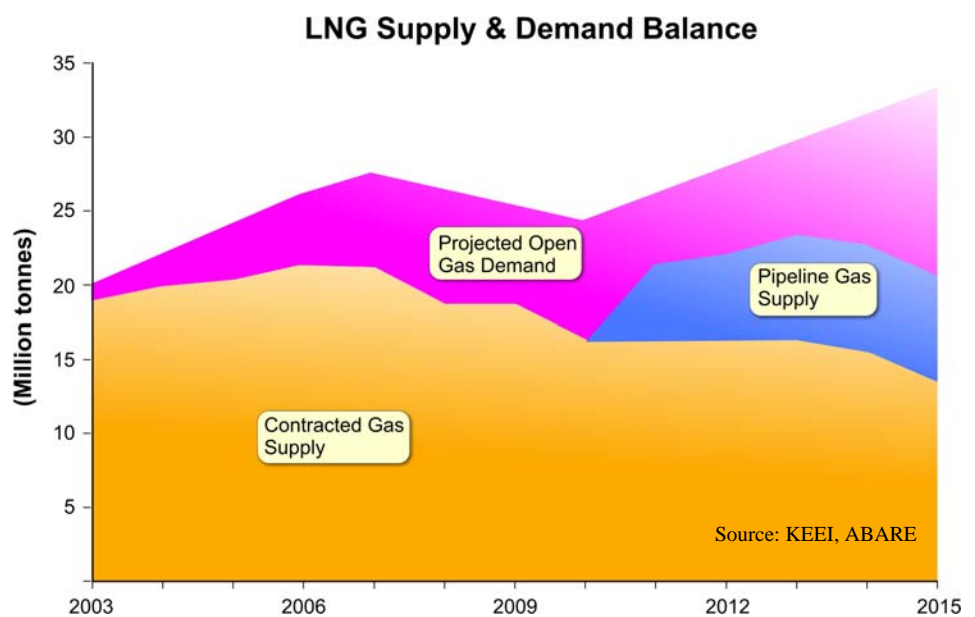
## CONCLUSION: LNG MARKET OPPORTUNITIES IN SOUTH KOREA

Following the announcement earlier this year of the award of long-term contracts totalling up to 6mtpa from 2008, KOGAS announced almost immediately that it would soon seek new LNG contracts to secure approximately 3mtpa of supply to meet demand from 2010. KOGAS has also indicated recently that additional long-term supply contracts will be sought in 2010 to cover additional demand from 2014.

Combined with existing term contracts of 21.3mtpa, KOGAS currently has secured over 26mtpa of term LNG supply.

However, several existing contracts are due to expire before 2014 and official forecasts put LNG demand at over 30mtpa by 2017. This will result in a significant supply shortfall emerging later this decade which could be exacerbated by any delays in the start-up of new contracts or the delivery of pipeline gas from Siberia.

NWSALNG has a strong competitive position in the South Korean and a reputation as a safe, reliable and secure LNG supplier. NWSALNG will be seeking to further broaden and deepen this relationship in the years ahead by targeting new business opportunities with the potential to further enhance the strong bilateral relationship between Australia and South Korea.



## APPENDIX – SUPPLEMENTARY INFORMATION

### **North West Shelf Venture Participants**

The NWSV LNG joint venture is structured with six participants, each participant having a one-sixth share. The participants are BHP-Billiton Petroleum (North West Shelf) Pty Ltd, BP Developments Australia Pty Ltd, Chevron Australia Pty Ltd, Japan Australia LNG (MIMI) Pty Ltd, Shell Development (Australia) Pty Ltd and Woodside Energy Ltd. In addition, CNOOC NWS Private Limited, a subsidiary of the Chinese national oil and LNG company CNOOC Ltd, is also a member of the NSWV, but does not have an interest in the NWSV infrastructure.