



Submission No 16

**Inquiry into Australia's trade and investment relationship
with Japan and the Republic of Korea**

Organisation: Department of Resources, Energy and Tourism
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Australian Government

Department of Resources, Energy and Tourism

**Inquiry by the Joint Standing Committee on Foreign
Affairs, Defence and Trade into Australia's Trade
and Investment Relationship with Japan and
the Republic Korea**

Submission by the Department of Resources, Energy and Tourism

August 2011

Contents

BACKGROUND TO SUBMISSION	3
INTRODUCTION	4
Energy and Mineral Resources	6
Trade	6
Investment	8
Tourism	8
Trade	8
Trends	11
Investment	12
Trends in energy and resources relations	13
Trade leading to investment	13
Growth in gas	14
Floating liquefied natural gas (FLNG) technology	16
Rare earths cooperation	17
Clean energy opportunities	18
Barriers and impediments to trade and investment for Australian businesses	19
Competing in a global marketplace	19
Australian Government infrastructure and workforce initiatives	20
Opportunities for deepening existing commercial links, and developing new ones	20
Resources and low emissions technologies	21
Opportunities in the mining equipment, technology and services sector (MTS)	23
Significance to the Australian economy of tourism investment and future opportunities	23
The role of government in identifying new opportunities and assisting Australian companies to take advantage of opportunities in both countries	24
A foundation for expanded trade and investment	24
Providing precompetitive data to support investment in new resources discovery	25
Providing tourism data to support investment	26
Bilateral and multilateral engagement on energy and resources matters	26
Bilateral and multilateral engagement on tourism matters	28

Background to Submission

The following submission is made by the Department of Resources, Energy and Tourism (RET) in response to the inquiry into Australia's trade and investment relationship with Japan and the Republic of Korea (Korea)¹ announced by the Honourable Dr Craig Emerson MP, on 21 April 2011.

The Department of Resources, Energy and Tourism (RET) is the key advisor to Government on policy options for Australia's resources, energy and tourism industries. RET works closely with industry stakeholders and State/Territory governments.

The submission examines Australia's relationship with Japan and Korea in the context of the Australian energy, mineral resources and tourism sectors, and addresses the terms of reference for the inquiry as follows:

The Trade Sub-Committee of the Joint Standing Committee on Foreign Affairs, Defence and Trade will inquire and report on Australia's trade and investment relations with Japan and the Republic of Korea with particular reference to:

- *the nature of Australia's existing trade and investment relations;*
 - *emerging and possible future trends in these relations;*
 - *barriers and impediments to trade and investment with Japan and the Republic of Korea for Australian businesses;*
 - *opportunities for deepening existing commercial links, and developing new ones, with Japan and the Republic of Korea; and*
 - *the role of the government in identifying new opportunities and assisting Australian companies to access existing and potential opportunities in Japan and the Republic of Korea.*
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¹ Korea is used throughout this submission to refer to the Republic of Korea, as known as South Korea.

Introduction

Japan and Korea figure strongly in Australia's enduring success as an exporting nation. The Australia-Japan trade relationship is Australia's longest standing bilateral relationship in the Asia-Pacific region, spanning over fifty years. Trade and investment links between Australia and Korea are also longstanding. Australia's valued relationship with these two key trading partners is built on a foundation of complementary strengths.

From an Australian export perspective, our trading and investment relationship with Japan began with the development of the Pilbara iron ore industry. Development of then new industry was financed by long term contracts with Japan. Iron ore cargoes were first shipped to Japan in the mid 1960s. The Japanese became foundation customers and investors in the North West Shelf LNG (liquefied natural gas) project in the 1980s, and Japan received the first cargo shipped from the North West Shelf in 1989. Japan has also been vital to the development Australia's coal industry and now accounts for 40 per cent of Australia's coal exports.

Complementary strengths have continued to drive our robust trade and investment relationship with Korea since the 1960s, with Australia's resource export industries providing the raw materials for Korea's manufacturing sector. Today, Korea is participating in Australia's (and likely the world's) first floating liquefied natural gas (FLNG) project – the Shell Prelude FLNG Project – off the northwest coast of Western Australia. The potential for further growth in two-way resources trade and investment with Japan and Korea is considerable, judging by recent LNG supply agreements and a movement towards direct participation in major resource projects alone.

While fundamentally important, there is more to Australia's future relationship with Japan and Korea than trade and investment opportunities in traditional energy and mineral resources. Changing global priorities and business models are sparking (potential) new commercial opportunities in resources and energy related expertise such as the mining equipment, technology and services sector. Engagement is expanding markedly in non-traditional areas including renewable energy, energy efficiency and low-emission technologies and related services, through collaboration and joint development.

Annual high level senior officials' dialogues conducted by the Department of Resources, Energy and Tourism and its Japanese and Korean counterpart organisations, as well as ad hoc meetings, enable government and industry stakeholders to discuss key issues affecting two-way resources and energy trade and investment and exchange information on notable policy developments.

Historically, Japanese investment in the Australian tourism industry has also been significant. In the 1980s, Japanese investment created a hotel and resort infrastructure for the rapid expansion of Australia as an international tourist destination. Investments were heavily concentrated in prestigious hotels and resorts in popular tourist destinations. Queensland received more than half of the total Japanese investment in the hotel resorts market, particularly around the Gold Coast and Cairns.

However, the boom in property investment in the 1980s plummeted in the early 1990s after the weakening of the Japanese economy. There was some modest recovery in the economy last year. Looking further to the future, Japan and Korea will continue to feature among a range of countries as potential sources of investment for the Australian tourism industry.

Australia is facing increasing competition from a number of economies in the Asia-Pacific region not just as a destination for Japanese travel, but also as a destination for Japanese investment in tourism infrastructure. Despite this increased level of competition, Australia continues to attract significant numbers of Japanese tourists. In 2010, the Japanese inbound market was Australia's fifth largest in terms of both value and arrivals, accounting for almost 7 per cent of total visitors and over 5 per cent of tourism export earnings.

In 2010, the Korean inbound market was Australia's sixth largest market by value and Australia's eighth leading market in terms of international visitor arrivals. In that year, visitors from Korea accounted for almost 5 per cent of total export earnings and almost 4 per cent of total tourism visitors to Australia.

Under the National Long-Term Tourism Strategy (Strategy), Australian governments are working in partnership with industry to increase the competitiveness of the Australian tourism industry. As part of the Strategy, a number of initiatives are being pursued to increase investment in tourism infrastructure and the quality of the Australian tourism product offering. These measures and the marketing activities of Tourism Australia to more effectively promote Australia as a tourism destination place Australia in a better position to capture more of the benefits that the Japanese and Korean markets have to offer.

As the submission notes, Asian investment in Australia, including from investors in Japan and Korea, will be crucial to unlocking the full potential of Australia's resources, energy and tourism industries.

Energy and Mineral Resources

Australia has developed a positive, substantial and complementary trade and investment relationship with Japan and Korea based largely on exports of energy and mineral resources. Australian exports of energy and mineral commodities have played an important role in the economic development of Japan and Korea,² and in turn, investment in Australia by Japanese and Korean companies has been important for the development of our major energy and mineral resources, and related services and technologies export industries.

Trade

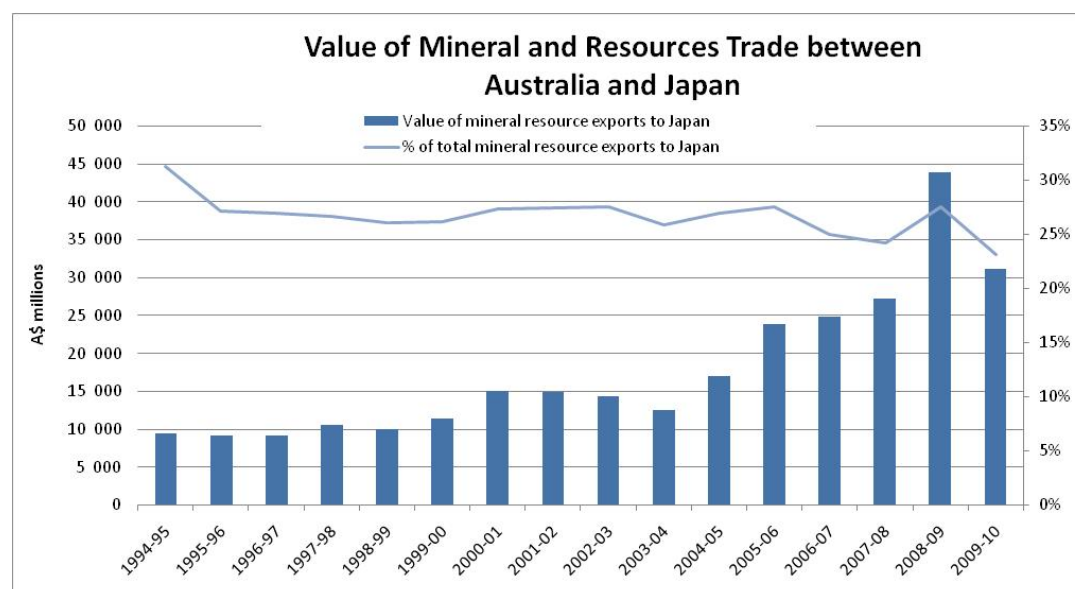
Table One - Major Resource and Energy Trading Partners of Australia

Rank	A\$ millions	1988/89		2009/10
1	Japan	6 801	China	37 733
2	Hong Kong	1 241	Japan	31 172
3	Republic of Korea	1 240	India	14 904
4	United States	977	Republic of Korea	13 330
5	Taiwan	891	United Kingdom	5 115

Source: ABARES Commodity Statistics 2010 Publication.

Over the last twenty plus years, and despite rapidly growing demand from the emerging economies of China and India, Japan and Korea have maintained their top five ranking (second and fourth, respectively, in value terms³ in 2009-10) as major resource and energy trading partners of Australia, as shown in Table One above.

Chart One – Value of Mineral and Resources Trade between Australia and Japan

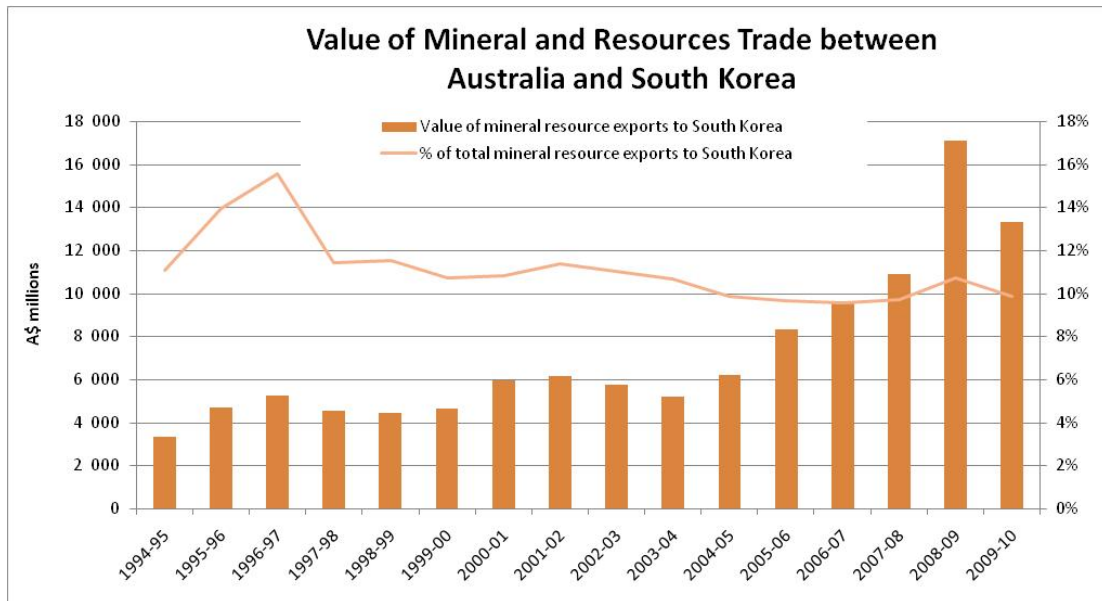


Source: ABARES Commodity Statistics 2010 Publication.

² The primary energy and mineral needs of Japan and Korea are met mostly by imports.

³ All values in this submission are in Australian dollars (A\$), unless otherwise indicated.

Chart Two – Value of Mineral and Resources Trade between Australia and Korea



Source: ABARES Commodity Statistics 2010 Publication.

As a leading destination for Australian exports of mineral and energy resources, Japan accounted for over 20 per cent of total mineral and energy exports by value in 2009-10 (see Chart One), although the level of importance varies between commodities. Japan is Australia's principal export market for coal, aluminium and liquefied natural gas (LNG), and second largest market for iron ore and concentrates and copper ore and concentrates. In 2009-10, Korea accounted for about 10 per cent of total mineral and energy exports by value (see Chart Two).

Australian coal exports to Japan were valued at approximately \$12.9 billion and aluminium exports at approximately \$1.3 billion⁴ in 2009-10. In the same period, Japan received around 70 per cent of Australia's \$7.8 billion worth of LNG exports. The Japanese electricity sector consumed over \$39 billion in primary fuels in 2010, of which Australia supplied coal (61 per cent); LNG (17 per cent); crude oil (4 per cent); and uranium (22 per cent). For the 2009-10 period, Australian iron ore exports were valued at approximately \$6.0 billion (behind China at \$25.2 billion) and copper exports valued at approximately \$1.17 billion (behind China at \$1.20 billion and India at \$1.18 billion)⁵.

In 2009-10, Korea was Australia's fourth largest export market (goods and services exports of \$18.4 billion) and fourth largest overall trading partner (total two-way trade of \$25.8 billion in 2008-09). Australia's exports to Korea of resource commodities (energy and mineral products), plus metals such as aluminium and copper, accounted for almost 75 per cent of Australian merchandise exports to Korea in 2009-10. The largest trade in commodities (by value) in 2009-10 was of coal (\$4.3 billion), iron ore (\$2.9 billion), crude petroleum (\$1.9 billion) and aluminium (\$780.3 million).

⁴ DFAT, *Composition of Trade Australia 2010*, pp 40 and 41.

⁵ Refers to ore(s) and concentrates; DFAT, *Composition of Trade Australia 2010*, pp 39 and 41.

Over the past decade, Australia has provided, on average, uranium equivalent to around 20 percent of Japan and Korea's uranium use.

Investment

In 2009-10, the Foreign Investment Review Board (FIRB) approved \$6.0 billion of proposed investments from Japan, 33 per cent of this in the mining sector. Japan featured as the seventh largest FIRB approved investor for new investment in mineral exploration and development. In addition, as at 2010, total Japanese investment stock in Australia was \$117.6 billion, of which \$49.9 billion was foreign direct investment.

The FIRB approved \$2.9 billion of proposed investments from Korea in 2009-10, of which 60 per cent was in the mining sector. Korea featured as the eighth largest FIRB approved investor for new investment in mineral exploration and development. In addition, as at 2010, total South Korean investment stock in Australia was \$9.4 billion, of which \$2.1 billion was foreign direct investment.

Tourism

Japan and Korea are two important markets for Australia's international tourism sector. Taken together these two markets account for nearly 10 per cent of total tourism exports and just over 10 per cent of total visitors. Despite ongoing challenges in maintaining market share in an increasingly competitive global market, both Japan and Korea are expected to remain significant sources of tourism export income and have the potential to fund investment in tourism product as has occurred previously.

Trade

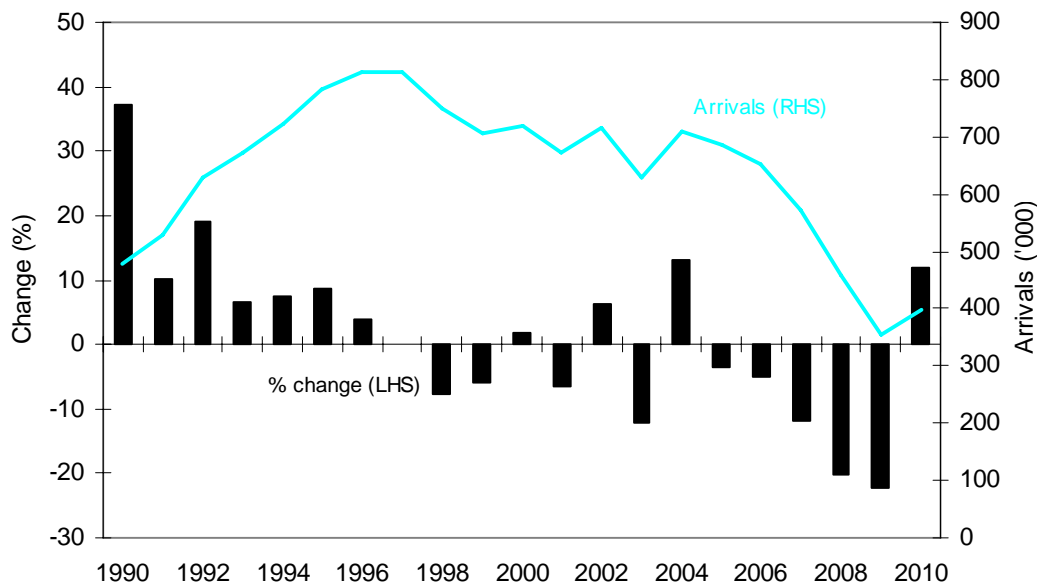
Australia's ability to attract visitors from Japan and Korea is critical to strengthening the bilateral relationship. Tourism is an effective avenue of establishing the people to people linkages necessary to forge closer cultural ties from which Australia's strategic and commercial interests may be more effectively pursued with Japan and Korea.

The National Long-Term Tourism Strategy (Strategy) provides the framework in which the Australian Government is working in partnership with state and territory governments and industry to increase the competitiveness of the Australian tourism industry. The partnership arrangement for implementation is achieved through nine working groups to engage with key issues. Through a number of these working groups, including the Investment and Regulatory Reform Working Group, a number of initiatives are being pursued to increase investment in tourism infrastructure and the quality of the Australian tourism product offering. These measures, coupled with the marketing activities of Tourism Australia to more effectively promote Australia as a tourism destination, will help to position the Australian tourism industry to leverage more effectively the opportunities that the Japanese and Korean markets present.

The Japanese inbound market was Australia's fifth largest market, both in terms of value (\$1.2 billion) and by arrivals (398,000) in 2010, as shown in Chart Three below. Economic value of the Japanese market for the Australian tourism industry for the past decade is shown in Chart Four below.

Chart Three

Arrivals from Japan, 1990-2010



Source: Australian Bureau of Statistics (ABS), *Overseas Arrivals and Departures* (ABS cat. no. 3401.0); Tourism Research Australia (TRA), *International Visitor Survey* (IVS).

However, this market has been in steady decline since the late 1990's, mainly due to the strong appreciation of the Japanese yen against the Australian dollar making its main travel segment, the package holiday, less price competitive compared to other nearby travel destinations. Japanese visitation had shown signs of recovery in 2010 with arrivals up by 12 per cent on 2009, prior to the series of natural disasters in both countries (and the nuclear plant disaster in Japan) at the beginning of 2011, which has had an immediate impact on two-way tourism flows.

Growth in Japanese visitors during the past decade, from low bases, has been experienced in the Visiting Friends and Relatives, Business, Education and Employment segments of the market; however, all of these segments combined account for less than 24 per cent of the market. Japanese visiting Australia for Education in 2010 accounted for 5.1 per cent of arrivals (the market has grown almost 70 per cent in the last decade).

Australia is also facing increased competition for Japanese tourists as a number of economies in the region (including Japan itself) are seeking to develop tourism as a way of diversifying their economic base. In addition to traditional competitors like Hawaii and Palau, Australia is facing competition from places like Macau, Singapore, Guam, and the Philippines. Australia is competing with these economies not just as a destination for Japanese travel, but also as a destination for Japanese investment in tourism infrastructure.

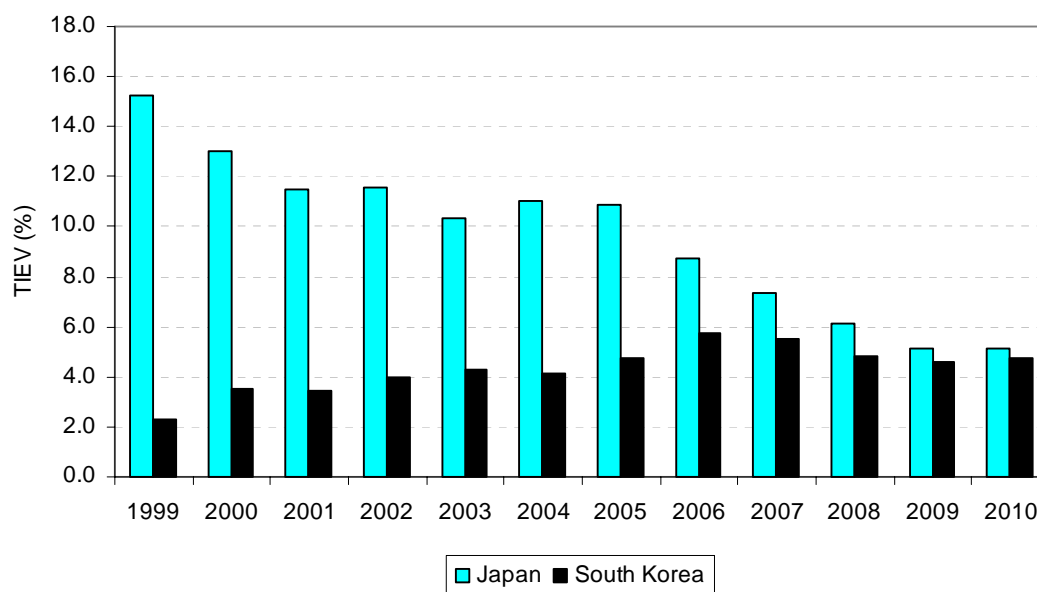
Despite this increased level of competition, Australia continues to attract significant numbers of Japanese tourists. Based on 2010 data, Japanese visitors accounted for almost 7 per cent of total visitors and over 5 per cent of tourism export earnings⁶.

⁶ Tourism Research Australia (TRA), *Tourism Industry Facts & Figures at a Glance May 2011*.

Data from the United Nations World Tourism Organization shows that Australia attracts proportionately more than five times as many visitors from Japan as from other markets. Latest available figures show that Australia accounts for 3.3 per cent of the Japanese outbound tourism market compared to 0.6 per cent of the global outbound tourism market⁷.

Chart Four

Total Inbound Economic Value (TIEV) by market: proportion of total, 1999-2010



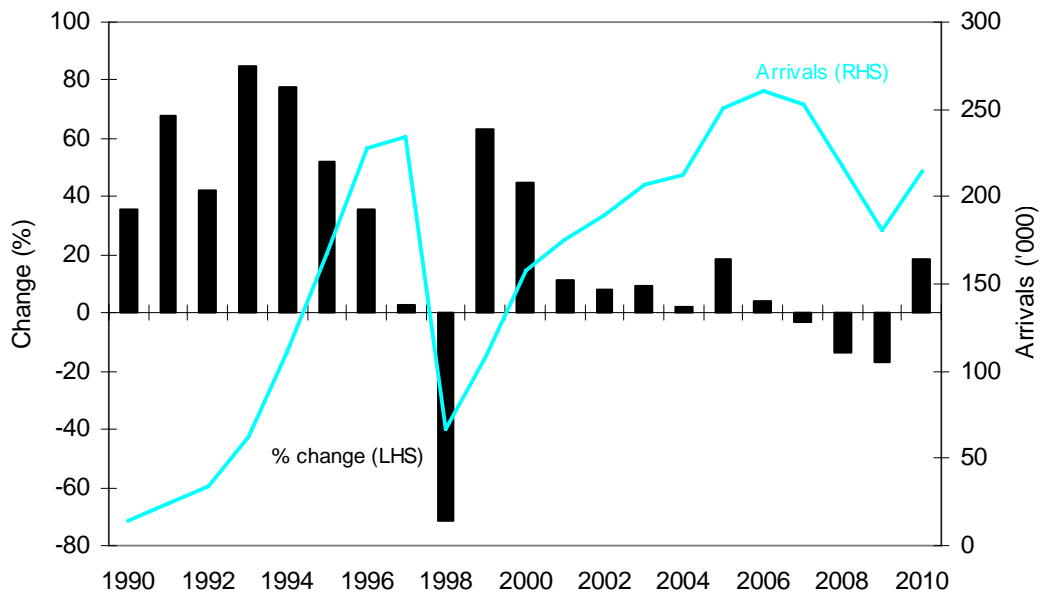
Source: Australian Bureau of Statistics, *Overseas Arrivals and Departures* (ABS cat. no. 3401.0); Tourism Research Australia, *International Visitor Survey*.

The Korean inbound market was worth \$1.1 billion to the Australian economy in 2010, making it Australia's sixth largest market by value. Economic value of the Korean market for the Australian tourism industry for the past decade is shown in Chart Four above. It is also Australia's eighth leading market in terms of international visitor arrivals, with around 214,000 arrivals in 2010, as shown in Chart Five below.

⁷ United Nations World Tourism Organization, *Compendium of Tourism Statistics 2010 Edition* – based on 2008 data from UNWTO for Japanese outbound market and Japanese inbound visitors to Australia in 2007-08.

Chart Five

Arrivals from South Korea, 1990-2010



Source: ABS, Overseas Arrivals and Departures (ABS cat. no. 3401.0); TRA, IVS.

However, arrivals in 2010 were around 47,000 lower than the record number of visitor arrivals which was 261,000 in 2006. In 2010, visitors from Korea accounted for almost 5 per cent of total export earnings and almost 4 per cent of total tourism visitors to Australia⁸.

Approximately half of Koreans visiting Australia for a holiday are still doing so on a package tour. Growth in the Korean market in the past decade, again from a low base, is primarily coming from the Education (almost 11 per cent in 2010) and Employment (over 2 per cent in 2010) segments, as well as Working Holiday Makers.

Trends

Prospects for both markets in 2011 are mixed, with the Tourism Forecasting Committee (TFC) forecasting the Japanese market to fall (again) sharply by around 27 per cent to around 293,000 arrivals (due to the continued weak economic backdrop and tsunami/nuclear plant disasters), while a moderate increase is forecast in tourism arrivals from Korea (of 2.9 per cent) this year. While the forecast for Japan looks on track so far this year (January-May 2011), compared to the same period last year, visitor arrivals from Korea have fallen by 8 per cent over the same period. On this basis, the TFC forecast for moderate growth appears optimistic.

The TFC is forecasting only moderate growth in real tourism consumption (or exports) for Korea over the 2010-2020 period, with average annual growth forecast at 3.2 per cent over this period. The value of the Japanese inbound market is forecast to decline on average by 1.0 per cent per annum over the same period.

Both markets represent only a small share of the 7.1 million Australian outbound market (i.e. the number of overseas trips taken by Australians each year). Around

⁸ TRA, *Op. Cit.*

164,000 trips were made to Japan in 2010 (as a main destination), while 45,000 trips were made to Korea last year. However, these volumes are still important in securing bilateral air access between Australia and these markets.

The established air links between Korea, Japan and Australia remain strong despite economic challenges in the aviation environment. The Qantas Group currently operates 29 services a week between Australia and Japan. Specifically, Qantas operates a daily return service between Sydney and Tokyo, while Jetstar operates a total of 22 return services in various combinations from Osaka and Tokyo to its Queensland hubs of Cairns and Gold Coast airports. Japan Airlines (JAL) commenced a corporate restructure and route review in 2010. Subsequently JAL has made a number of changes to its network and schedules, including the suspension of its daily Tokyo to Brisbane service. Today, JAL operates a daily return service between Tokyo and Sydney. As noted under the 'Barriers and impediments to trade and investment for Australian businesses' section, there is potential for future growth if access to Haneda airport for Australian airlines (a current barrier to trade) can be achieved.

Currently no Australian carrier services the Korean market directly, although seasonal and charter services are scheduled during peak periods of demand. Korean Air operates four services a week from Seoul to Brisbane, three services a week from Seoul to Melbourne, and daily services from Seoul to Sydney, while Asiana Airlines operates daily services from Seoul to Sydney (on which Qantas code-shares).

Investment

Investing in new products that are relevant to changing demographics is critical to determining the attractiveness of a tourism destination. Increased investment in tourism is essential to drive long-term profitability, capacity and innovation in Australia's tourism industry.

One of the key tourism policy challenges is to ensure that Australia has the quality tourism products and services required to move up the international tourism value chain and remain internationally competitive. This is particularly important because Australia's higher labour costs means that tourism products and services are often more expensive than those of competitor destinations. Without sufficient levels of additional investment, Australia's tourism product will fail to offer increasingly sophisticated tourists the necessary value for money required to justify paying higher prices. This is particularly true for the Japanese and Korean markets.

The Australian tourism industry is subject to a fierce and increasing level of global competition for capital and investment. Investment capital is not limitless and is aggressively pursued by a number of countries who have liberalised their foreign investment regimes. Many of these jurisdictions have also targeted tourism investment as a means of diversifying their economic base, which has made tourism investments in other locations more attractive.

Under the National Long-Term Tourism Strategy, the Australian Government is working with state and territory governments and industry to identify the supply side constraints to industry growth, including removing the barriers to new tourism

investment. The Investment and Regulatory Reform Working Group is investigating a suite of reform issues for governments to explore, including engagement with planning reform; proactively facilitating investment; and programs to increase the labour supply in the tourism industry to make Australia a more attractive destination for tourism investment.

In addition, the Department of Resources, Energy and Tourism, Tourism Australia and Austrade are working proactively together to better identify sources of tourism investment to help reach the 2020 Tourism Industry Potential. This is consistent with the statement of expectations that the Minister for Resources, Energy and Tourism, the Hon Martin Ferguson AM MP, issued to Tourism Australia on 11 July 2011.

Over the past decade, Australia's international competitiveness in tourism has not kept pace with global trends and this has translated into a decline in international market share. In addition to the National Long-Term Tourism Strategy and the Jackson Report, the 2020 Tourism Industry Potential provides a rallying call to Australian industry and governments to focus on increased returns from the tourism industry. By 2020, the potential size of the Australian tourism industry is estimated to be between \$115 billion and \$140 billion in overnight expenditure. The Tourism Industry Potential for incremental growth in expenditure at 2020 for the Japanese market is \$1.2 billion to \$1.8 billion and for the Korean market is \$1.6 billion to \$2.2 billion.

Both the supply-side reforms that are being pursued under the Strategy and the stronger institutional arrangements that are being put in place to more effectively facilitate tourism investment will assist Australia to attract more tourism investment from Japan and Korea.

These measures will be particularly important to help unlock the investment potential of the Japanese and Korean markets because of the relative underperformance in this area in recent years.

Data from the Foreign Investment Review Board (FIRB) demonstrates that these markets have not accounted for a significant share of tourism investment in recent years. In the last five years, the FIRB has assessed tourism investment proposals worth over \$9.1 billion. Investments from Japan and Korea totalled \$31 million, or just 0.34 per cent of total tourism investment assessed by the FIRB⁹. Potential does exist, however, for further investment from both countries as detailed later in this submission.

Trends in energy and resources relations

Trade leading to investment

Australia and Japan and Australia and Korea have a dynamic trade and investment relationship based on shared values and objectives, including the promotion of well-

⁹ Data sourced from Foreign Investment Review Board Annual reports from 2005-06 onward up to an including 2009-10.

functioning global energy and minerals markets to encourage the trade and investment needed to deliver sustainable resources security.

The growth in Chinese and regional demand for energy and mineral resources has driven a substantial increase in project and infrastructure investment. Consequently, Japan and Korea are benefiting from the rapid expansion of supply capacity in the Australian resources sector being driven by rising demand for key commodities.

Japanese and Korean investment patterns in the Australian resources sector have changed noticeably since the 1980s. It is a sign of Australia's maturing and mutually beneficial relations with Japan and Korea, that both are comfortable taking a direct stake in Australian resource projects in the form of equity partnerships and minority shareholdings. In another positive sign for project proponents and investors, this change is occurring for strategic, commercial and resource security reasons¹⁰. One notable example of Japan's direct involvement in Australian resource projects is its investment in, and development of, the Ichthys gas and condensate project, where for the first time a Japanese firm (INPEX Corporation) is the operator of a major LNG project in Australia¹¹.

In addition to Ichthys, Japanese companies have direct equity holdings in the North West Shelf Venture and Darwin LNG. Japanese companies also have direct equity in three of the four LNG projects currently under construction in Australia (Pluto, Gorgon, and Queensland Curtis LNG (QCLNG)).

In January 2011, the state-owned enterprise, Korea Gas Corporation (KOGAS), acquired a 15 per cent stake in the Gladstone LNG (GLNG) coal seam gas-based LNG project and will also purchase LNG from the project. This is Korea's first equity stake in an Australian LNG project.

Given the vast amounts of capital needed to develop gas and other resources, and growth and earnings opportunities in the Australian market, Japanese and Korean direct investment in the Australian resources sector is likely to increase further.

Growth in gas

Global economies are increasingly turning to natural gas as a clean, safe and reliable source of energy. The International Energy Agency (IEA) recently reported that world gas demand in 2010 experienced the highest growth rate in 40 years, driven by increased power and industrial demand following the global recession¹². In its *2011 Special Report on Gas*, the IEA posits an optimistic future outlook for global gas demand by 2035 that would see demand increase 60 per cent on 2010 levels.

Australia has just under two per cent of world gas reserves, but is the world's fourth largest LNG exporter with total LNG exports in 2010 of 19.1 million tonnes (mt),

¹⁰ 'Japanese investment in Australia slips under the radar', *The Australian*, 20 April 2010, <http://www.theaustralian.com.au/business/economics/japanese-investment-in-australia-slips-under-the-radar/story-e6frg926-1225851112314>.

¹¹ http://www.dfat.gov.au/publications/aus_japan/chapter1.html.

¹² IEA, *Medium-Term Oil & Gas Markets 2011*.

worth approximately \$9.4 billion¹³. LNG exports are forecast to exceed \$10 billion in 2011-12¹⁴ and to be Australia's fastest-growing energy export over the next two decades.

Australia's current LNG export capacity is around 20 mt per annum (mtpa) from the two operational projects, the North West Shelf Venture and Darwin LNG. Total LNG export capacity will increase to 24 mtpa with the start-up of Pluto Train 1 in 2012 and could exceed 50 mtpa by 2015-16 once the Gorgon, QCLNG, GLNG and Prelude floating LNG projects currently under construction come online. At this time, Australia could become the second largest LNG exporter in the world. If all the proposed LNG projects proceed, LNG production in Australia could more than triple by 2020¹⁵ and there is potential to exceed this estimate. Australia is therefore in a strong position to meet future growth in demand for LNG in the Asia-Pacific region, especially from Japan and Korea as efforts increase to secure sources of gas.

Japan and Korea are almost entirely dependent on LNG imports for natural gas supply and play an influential role in the world's LNG markets. Together, Japan and Korea lead the world in LNG imports, representing 32 per cent and 15 per cent, respectively, of global LNG trade in 2010¹⁶.

Australia's LNG supplies to Japan and Korea are typically covered by long-term contracts to underpin security of energy supply. Japan has signed contracts for current and future LNG supply of over 35 mtpa, while Korea has agreements in place (some non-binding) for current and future supply of up to 7.5 mtpa of Australian LNG.

Japan imported 70.6 mt of LNG in 2010, up 8 per cent year on year, with Australia supplying 13.3 mt or 19 per cent of total Japanese LNG imports¹⁷. Japan is Australia's oldest, largest and most important trading partner in the LNG sector and accounts for the vast majority (70 per cent) of Australian LNG exports¹⁸.

Following the Great East Japan Earthquake in March 2011, Japanese demand for LNG is likely to increase to 79 mt in 2011, rising to 85 mt by 2020. These estimates may be exceeded due to an anticipated shift in energy policy away from nuclear power, which could see the share of gas in Japan's energy mix rise from 25 per cent in 2010 to 41 per cent by 2020¹⁹. An improvement to Japan's domestic pipeline infrastructure to facilitate access to gas supply may also add to gas demand.

Around 40 per cent of Japan's LNG imports are sourced from Malaysia and Indonesia, with both countries facing declining production and rapidly growing domestic

¹³ International Gas Union, *World LNG Report 2010*; DFAT *Composition of Trade Australia 2010*

¹⁴ ABARES, *Australian Commodities*, Vol 18, No 2, June Quarter 2011, Table 23 Value of commodity exports (fob).

¹⁵ ABARE, *Australian Commodities*, September Quarter 2009.

¹⁶ BP, *BP Statistical Review of World Energy 2011*.

¹⁷ International Gas Union, *World LNG Report 2010*.

¹⁸ RET Webpage, *Australian Liquefied Natural Gas*, http://www.ret.gov.au/resources/upstream_petroleum/australian_liquefied_natural_gas/pages/home.aspx.

¹⁹ FACTS Global Energy, 'Japan's Post-Disaster Energy Situations: LNG Demand Outlook', July 2011, <http://www.fgenergy.com/?page=home>.

demand²⁰. This may create additional opportunities for Australian LNG projects to sell further volumes into Japan.

In 2010, Korea imported 34.1 mt of LNG, making Korea the world's second largest importer of LNG behind Japan. Australia exported just under 1 mt of LNG to Korea in 2010, primarily through a mid-term contract between KOGAS and the North West Shelf Venture. Korea's total LNG imports are expected to reach 37 mt by 2016²¹.

Korea sources the majority of its LNG from the Middle East (Qatar and Oman) and from Malaysia and Indonesia, which as noted above are facing declining production. To maintain security of supply, Korea is targeting Australia for new long-term supplies of LNG expected to come on stream in the 2015-16 timeframe²². KOGAS has signed non-binding Heads of Agreements with Chevron to purchase 1.5 mtpa of LNG from the Wheatstone Project over 20 years and 1.5 mtpa of LNG from the Gorgon Project for 15 years. KOGAS has also purchased a 15 per cent equity stake in the GLNG Project and will receive up to 3.5 mtpa of LNG from the project. Demand for LNG in Korea is expected to grow strongly once progressive deregulation of the electricity sector enables Korea's electricity producers to contract directly with global LNG suppliers²³.

Increasing technological capabilities are raising the prospects for Australia's untapped unconventional natural gas resources such as CSG, tight gas and shale gas to contribute to future Australian exports of LNG to Japan and Korea²⁴.

Floating liquefied natural gas (FLNG) technology

The LNG sector is achieving world-first innovation through the deployment of floating LNG (FLNG) technology in Australia. FLNG has significant potential as a development option for remote and smaller gas fields which are located too far from existing infrastructure or are too small to develop via conventional land-based LNG projects. In 2008, the CSIRO estimated that these stranded gas reserves could be as large as 50 per cent of Australia's current reserves and be valued at up to \$1 trillion²⁵.

On 20 May 2011, Shell took the financial investment decision on its 3.6 mtpa Prelude FLNG project and has placed an order with Samsung Heavy Industries in Korea for the construction of an FLNG vessel to be delivered in 2016. Shell and the Technip-Samsung Heavy Industries consortium have signed an agreement to work on the

²⁰ http://www.eia.gov/oiaf/ieo/nat_gas.html.

²¹ ABARE, *Australian Commodities*, March Quarter 2011.

²² 'Korea to buy \$21 bn of Wheatstone LNG', *The Australian*, 21 July 2010, <http://www.theaustralian.com.au/business/korea-to-buy-21bn-of-wheatstone-lng/story-e6frg8zx-1225894777573>. The article notes that Korean President Lee Myung-bak would like to see an increase in Australian LNG imports to between 20 and 30 per cent of the nation's total.

²³ Korean Gas Corporation (KOGAS) is the government owned monopoly LNG importer. Korea has considered reforming LNG import policies, however to date has not passed legislation to allow other companies to import LNG.

²⁴ http://www.nbr.org/downloads/pdfs/eta/PES_2011_Facts_Global_Energy.pdf.

²⁵ CSIRO Wealth From Oceans National Research Flagship, *Subsea Pipeline Collaboration Cluster*, December 2008, <http://www.csiro.au/files/files/pgz9.pdf>.

design, construction and installation of multiple floating LNG facilities over a period of up to 15 years²⁶.

Korea's participation in Australia's (and likely the world's) first FLNG project is a key starting point for further commercial opportunities in the natural gas sector that will flow from the introduction of this ground-breaking technology in Australia. Woodside has selected FLNG as the preferred development option for the Greater Sunrise project in the Joint Petroleum Development Area, and Santos/GDF Suez and PTTEP Australasia are both examining FLNG potential.

Korean firms are also providing engineering and construction services for Australia's conventional offshore LNG projects. Hyundai Heavy Industries is constructing modules for Gorgon's processing trains and is fabricating the topsides for the North West Shelf Venture's North Rankin B platform.

Korea also has considerable interest in the development and commercialisation of a range of clean and renewable solutions, including gas-to-liquids (GTL) and coal-to-liquids (CTL) technologies²⁷, responding to climate change and energy security considerations²⁸.

Rare earths cooperation

World concerns over constrained global supply and rising global demand for rare earth elements, coupled with China's near monopoly on the production of rare earth oxides, continue to be an opportunity for Australia to strengthen its trade and investment relations with Japan and Korea.

Japan and Korea are leading world manufacturers of high technology products and 'green' applications that rely on rare earths input²⁹. Demand for these metals in Japan and Korea is forecast to grow over time to meet both increased global demand for high-end technology products and the increasing demand for more green-energy and energy-efficient technologies and products as the world makes the transition towards a low-emissions future.

Australia currently accounts for 1.98 per cent of world economic demonstrated resources (EDR), with 1.65 Mt rare earth oxides³⁰. Lynas Corporation and Arafura Resources Limited³¹ will be amongst the first producers of rare earths outside China, with production of rare earth oxides expected to commence in late 2011 (Lynas) and 2013 (Arafura).

²⁶ 'Technip-Samsung consortium take next step on Prelude floating LNG facilities', *Technip Press Release*, 9 March 2010, <http://www.technip.com/en/press/shell-and-technip-samsung-consortium-take-next-step-prelude-floating-lng-facilities>.

²⁷ RET briefing for heads of government meeting, 2011.

²⁸ Korea's goal is to lead the world in green-energy technologies by 2030.

²⁹ Such applications include LCD and plasma televisions sets, mobile telephones, laptop computers, rechargeable batteries, and next generation automobiles, including hybrids. Rare earths have a variety of other applications critical to Japanese industry, including: automobile and chemical catalysts, fuel cells, electrical parts, glassmaking furnaces and hard discs.

³⁰ Geoscience Australia, 'The major rare-earth-element deposits of Australia: geological setting, exploration and resources', 2011.

³¹ <http://www.arafuraresources.com.au/operations.html>.

In November 2010, Lynas Corporation formed a strategic alliance with Japanese commodities trader, Sojitz Corporation, and signed an agreement to provide 8,000 to 9,000 tonnes per annum for ten years into the Japanese market. Sojitz Corporation also facilitated a US\$250 million loan through the Japan Oil, Gas, and Metals National Corporation (JOGMEC) to accelerate Stage 2 development at Lynas' Malaysia processing facility which will increase production to 20,000 tonnes per annum³².

Clean energy opportunities

Australia's traditional role as a reliable supplier of energy and mineral resources to Japan and Korea continues to evolve, with mutual interests in developing new technologies to produce cleaner fossil fuels such as LNG, and other clean energy solutions.

Progress in bringing high quality and cost-effective clean energy solutions to the market is vital to global and Australian efforts to underpin a low-emission economy. As with the broader trade and investment relationship, complementarities are a key driver of Australia's engagement with Japan and Korea in the clean energy space.

Japan and Korea are exploring Australia's clean energy sector, including renewable energy, energy efficiency and low emissions technologies such as carbon capture and storage (CCS)³³, for market growth potential and inward investment opportunities.

For Japanese companies seeking to expand overseas because of constraints in the Japanese domestic market (i.e. limited land space and an ageing population), Australia offers some clear geographical, political and market advantages³⁴. As global leaders in the field of photovoltaic technology, Japanese companies' expertise and experience in large-scale generation plants is a good fit to Australia's natural advantages and initiatives for clean energy, including the Solar Flagships Program³⁵.

Japan has a keen interest in importing cleaner energy, and is particularly interested in potential investment opportunities in the Latrobe Valley, Victoria. Brown coal gasification has the potential to add value to vast coal resources in Victoria. The value added products could include hydrogen, methanol, acetic acid, substitute natural gas (SNG), diesel and electricity using a highly efficient integrated gasification combined cycle (IGCC) power generation technology.

While CCS is geologically unsuitable for Japan (from a storage perspective), it is undertaking considerable investment in CCS technologies in recognition of the role of CCS in bringing down global emissions and Australia is a preferred investment destination for commercial demonstration.

³² http://www.lynascorp.com/content/upload/files/Presentations/Investor_Presentation_May_2011.pdf.

³³ <http://www.austrade.gov.au/Clean-energy-overview/default.aspx>.

³⁴ <http://www.austrade.gov.au/Clean-energy-to-Japan/default.aspx>.

³⁵ The primary objective of the Solar Flagships Program is to provide the foundation for large-scale, grid connected, solar power to play a significant role in Australia's electricity supply and to operate within a competitive electricity market, with the aim of up to 1,000 megawatts (MW) of solar power generation capacity; http://www.ret.gov.au/resources/Documents/solar_flagship/Solar%20Flagships%20Program%20Administrative%20Guidelines.pdf.

As providers of cost-competitive CO2 separation technologies, Japanese companies can enhance the position of Australia to lead the world in the development and deployment of CCS³⁶. Australia is a world leading contributor to the development and deployment of low emissions coal technologies, including in policy and regulatory leadership; pilot to medium scale demonstrations of CCS; as well as pilot trials of post combustion capture at power stations. Australia is also pursuing industrial scale demonstrations of CCS, which will continue to keep Australia at the forefront in applying these technologies, and in providing technical expertise to other countries in deploying these technologies.

More examples of Australia's (bilateral and multilateral) collaboration with Japan and Korea in the field of clean energy are given later in this submission.

Barriers and impediments to trade and investment for Australian businesses

Competing in a global marketplace

Australia competes for trade and investment in a global marketplace and is sensitive to the many market influences that affect trade and investment decisions, not least changing investors' perceptions of short and longer term risks to security of supply.

Economic, political and commercial factors, as well as natural events, both within and outside Australia, can alter risk profiles and have a dampening effect on the growth outlook for Australia's energy, resources and tourism industries.

How Australia is viewed internationally and by major investor countries such as Japan and Korea, including in terms of the quality, timeliness and appropriateness of our policy responses to perceived or real resources security issues, can make a positive difference to our trade and investment position. The *2008-09 Fraser Institute Annual Survey of Mining Companies* (a survey assessing how mineral endowments and public policy factors affect exploration investment) noted respondents' specific areas of perceived concerns as uncertainty regarding native title and land claims; supply of labour and skills; environmental regulation; areas to be protected as wilderness and parks; taxation regimes; and regulatory duplication and inconsistency (particularly in Western Australia and New South Wales)³⁷. These concerns touch on issues of increasing and renewed policy focus for Australian governments and RET portfolio stakeholders.

One clear example of where trade barriers need to be overcome for Australia to successfully compete in the global tourism market relates to the bilateral aviation arrangement between Japan and Australia. Under the current Air Services Agreement, Australian carriers do not have access rights into Tokyo's Haneda Airport. Opportunities for Australian carriers to fly directly into Haneda Airport would provide valuable passenger links into the Japanese domestic market, and expanded beyond rights from Japan will afford further trade, aviation and tourism opportunities in new and existing markets.

³⁶ <http://www.austrade.gov.au/Clean-energy-to-Japan/default.aspx>.

³⁷ Fraser Institute Annual Survey of Mining Companies: 2008-09.

Australian Government infrastructure and workforce initiatives

Overcoming obstacles to export growth due to domestic factors such as long lead times for equipment delivery (and for investment in additional production), infrastructure capacity constraints and a lack of skilled labour is integral to the future productivity and export success of Australia's resources businesses. Japan and Korea are interested in Australian Government responses to these challenges, both from a customer and (potential) provider perspective.

The Australian Government is implementing strategies and initiatives designed to address infrastructure and workforce constraints in the resources sector and improve resource industry productivity and export capacity and competitiveness: namely, the National Ports Strategy and National Land Freight Strategy; Regional Infrastructure Fund³⁸; and National Resources Sector Workforce Strategy³⁹.

The Council of Australian Governments (COAG) is implementing a range of measures to strengthen Australia's nationally significant critical infrastructure sectors (including transport and energy). The Australian Government's Trusted Information Sharing Network (TISN) for Critical Infrastructure Resilience⁴⁰ has also been developed to ensure the continuity of essential services in the face of all hazardous events including natural disasters, cyber crime, pandemic, and terrorist attacks. RET⁴¹ (and Geoscience Australia⁴²) provides input to and facilitates the energy sector's involvement in the TISN.

As discussed previously, the Australian Government is also addressing barriers to increasing tourism exports including infrastructure and workforce constraints through the National Long-Term Tourism Strategy. Labour and skills is seen as one of the greatest supply side challenges in terms of growing the Australia tourism industry, and the Strategy's Labour and Skills Working Group is tasked with improving the tourism and hospitality industries' ability to attract and retain labour through better workforce planning, innovative recruitment initiatives and improved training and career opportunities.

Opportunities for deepening existing commercial links, and developing new ones

Our existing commercial links with Japan and Korea have an important impact on the Australian economy and Australian companies' business dealings and offer huge potential in new high-growth areas. The signs for deepening existing and developing new Australia-Japan and Australia-Korea commercial links in both the non-renewable and renewable energy and mineral resources sector are overwhelmingly positive. Asian demand for energy and mineral resources from our major trading partners China, Japan, India and Korea is one of the driving forces behind the current continuing resources boom in Australia.

³⁸ <http://www.infrastructureaustralia.gov.au>.

³⁹ <http://www.deewr.gov.au/resourcesworkforce>.

⁴⁰ <http://www.tisn.gov.au/>.

⁴¹ http://www.ret.gov.au/energy/energy_security/critical_infrastructure_protection_and_resilience/Pages/CriticalInfrastructureProtectionandResilience.aspx.

⁴² <http://www.ga.gov.au/hazards/governance/national-committees-hazards.html>.

Australia's market-opening policies are facilitating private sector innovation and the quantities of investment (foreign and domestic) needed to achieve economies of scale and increase the cost-competitiveness of existing and emerging energy and mineral technologies.

Negotiations on a free trade agreement with both countries affirm the importance of Japan and Korea to Australia's trade and economic performance, and optimism with regard to the potential to build on already productive and dynamic business relationships in energy and resources sectors and improve bilateral market access to new business opportunities in coming years.

Japan and Korea are showing interest in working with Australia in research and development and investing in Australian technology and expertise, as well as investing directly in our abundant energy and mineral resources. Australian businesses must continue to engage with Japanese and Korean counterparts to further develop and nurture these and other interests in common.

Resources and low emissions technologies

New commercial opportunities are likely to emerge from the reshaping of Japan's medium and long term policy (following the Great East Japan Earthquake), and the addition of renewable energy and energy conservation to nuclear energy and fossil fuels as the major pillars of its Basic Energy Plan. Korea, too, is refocusing efforts on increasing the role of renewables and energy efficiency in its energy mix⁴³.

There is scope to greatly increase Japanese and Korean investment in the Australian mineral and energy sector, particularly in the development of projects by juniors through equity injections; subsidised financing; preferential marketing arrangements; off-take agreements; and project development joint ventures. Further investment opportunities may also be realised as Japan, Korea and Australia work to strengthen their presence as leaders in clean and environmental technologies. Australia's ability to capitalise on these opportunities will depend on our ability to address both mineral and energy supply and demand challenges and to reinforce relations in areas of mutual interest and concern.

In a speech by the Ambassador of Japan to Australia in Perth on 9 November 2009⁴⁴, His Excellency, Mr Takaaki Kojima, outlined the importance of low emissions energy in enhancing our investment relationship, noting that the volume of investment by Japanese companies in Australia was the largest among Asian companies in 2008. Furthermore, the Ambassador identified the recent active investment by Japanese companies such as LNG purchased for the Gorgon project and the participation in a feasibility study for uranium development project in Lake Maitland, as encouraging signs in terms of the acquisition of low-emissions energy.

⁴³ Korea has set ambitious targets for achieving a transition to a low carbon energy system: namely, that new and renewable energy will account for 11 per cent of the nation's total energy mix by 2030, as compared with about 2 per cent in 2007; and to improve energy efficiency 46 per cent by 2030 relative to the 2007 level. This advice was provided by the Ministry of Knowledge Economy at the 25 Meeting of the Korea-Australia Joint Committee on Energy Mineral Resources Consultations and Cooperation, 15-16 March 2010.

⁴⁴ Address titled, 'Japan Australia Relations', In the Zone Conference, 9 November 2009.

Collaboration on technologies such as carbon capture and storage (CCS) and renewable energy, and pairing Australia's technologies with Japan and Korea's manufacturing capabilities, will be critical to the developing energy relationship. Japanese company Marubeni Corporation was involved in a competing project under the Solar Flagships program, and has invested in wind and cogeneration plant in Australia.

Given the major role coal will play in electricity generation for the foreseeable future, Japan has taken a leadership role in carbon capture and storage, including partnering with an Australian company for the first oxyfuel retrofit in the world. Japan aims to improve efficiency at coal-fired power stations by 48 per cent by 2015⁴⁵. To this end, the Japanese Government has invested in researching large scale CCS demonstration domestically, and the Ministry of Economy, Trade and Industry (METI) has released safety guidelines for implementing CCS demonstration projects and the results of an experimental study into the safe injection of 10,400 tonnes of CO₂ between July 2003 and January 2005 in Nagoaka in the Niigata prefecture. Exports of Australian coal to Korea, investment by Korea in the Australian coal sector and Australia's expertise in low emission coal technologies act as a focal point of our collaborative work with Korea.

Japanese companies were involved in one of the projects shortlisted under the Department of Resources, Energy and Tourism (RET) CCS Flagships Program, although this project was not successful in moving to the next stage. Japanese companies are also involved with a post combustion capture plant as part of the Victorian CarbonNet Project⁴⁶.

The Governments of Japan and Korea are founding members of the Global Carbon Capture and Storage Institute (GCCSI)⁴⁷. A large number of Japanese and Korean companies and research institutions are also members of the GCCSI. The GCCSI will open an office in Tokyo in September 2011, to be staffed by Japanese nationals. On 18 April 2011, the GCCSI and the Rotterdam Climate Initiative hosted a workshop for Korean members in Seoul to share the lessons learned from the development of the Rotterdam CCS Network Project. The Korean Institute for Geology, Mining and Minerals (KIGAM) has recently rejoined Australia's CRC for Greenhouse Gas Technologies (CO₂CRC)⁴⁸.

⁴⁵ Information provided at the 32nd Australia – Japan High Level Group Meeting on Minerals and Energy in June 2009.

⁴⁶ <http://www.globalccsinstitute.com/resources/projects/victorian-carbonnet-project>.

⁴⁷ Currently there are 25 Japanese members of the GCCSI, including the Government of Japan, which is a legal member. Further Dr Makoto Akai, the Principle Research Scientist of the National Institute of Advanced Industrial Science and Technology, has been appointed to the GCCSI Board. The Government of the Republic of Korea (represented by the Ministry of Education, Science and Technology) is a member of the GCCSI, along with 13 other South Korean bodies.

⁴⁸ http://www.co2crc.com.au/about/p_kigam.html.

Opportunities in the mining equipment, technology and services sector (MTS)

Changing international business practices offer up opportunities to forge new commercial links outside bilateral relations boundaries⁴⁹. That is, Japanese and Korean businesses operating offshore are creating demand for Australia's energy and mineral exports to those countries or setting a path for future Australian exports. For example, the Korea Electric Power Company is building nuclear power plants in the United Arab Emirates and this could open the door to Australian uranium suppliers⁵⁰.

Other Australian companies, including exporting firms in the Australian mining equipment, technology and services sector (MTS), may also be able to exploit energy and mineral resources opportunities in collaboration with Japanese and Korean companies, in third countries, both in the region and elsewhere in the world. An area of the resources sector that has seen enormous innovation and growing export success, Australia's MTS generates estimated annual sales of \$8.7 billion⁵¹. Fifty per cent of firms in the Australian sector are exporters with combined exports of around \$2.5 billion annually⁵².

As noted earlier, Korean firms are also involved in providing support services to Australian LNG projects through the construction of plant modules and liquefaction facilities. These and other developing complementary capabilities could open up new avenues of collaboration available globally.

Significance to the Australian economy of tourism investment and future opportunities

Additional investment in tourism enterprises has broader economic benefits. For example, Access Economics estimated that for every \$1 invested in a new hotel, a further \$3 flows to the wider economy through increased tourism and business activity.⁵³ Work undertaken in the development of the National Tourism Planning Guide as part of the Strategy found that every 10 new hotel rooms create 18 new jobs.

Access Economics also found that flow on effects from the additional tourism activity, which is made possible by investment in quality tourism products and services, to other areas of the economy are significant. The ratio of total to direct value added for

⁴⁹ This concept is presented in a 2008 paper titled, *Australia and Japan: How distance and complementarity shape a remarkable commercial relationship*, prepared by the Economic Analysis Unit; http://www.dfat.gov.au/publications/aus_japan/index.html.

⁵⁰ In March 2011, Australia and the United Arab Emirates (UAE) commenced negotiations on a bilateral safeguards agreement, which, once concluded, will allow Australian uranium to be used in the UAE's nuclear power plants (see http://foreignminister.gov.au/releases/2011/kr_mr_110309.html).

⁵¹ *Austrade* (2008) estimated that in 2007-08 the mining equipment, technology and services (MTS) sector generated \$12 billion in annual sales, with \$2.5 billion in export sales. The definition adopted included capital equipment, contract mining, exploration, mining consumables, professional services, software and advanced technologies, and equipment supply. *HighGrade* (2010) estimated 2008-09 (MTS) sector annual sales of \$27.5 billion. In this case MTS includes all mining inputs, such as construction, contract mining and drilling services; construction and mining equipment manufacturers and suppliers; engineering services; consulting services; and software and technology applications.

⁵² ABARE, *An economic survey of companies in the Australian mining technology services and equipment sector: 2006-07 to 2008-09*, 2010; http://adl.brs.gov.au/data/warehouse/pe_abarebrs99014504/EcoSurveyAustMiningTechCo.pdf.

⁵³ Access Economics, *Perth Hotel Economic Impact Study* 2010.

tourism is estimated at 1.84. This suggests that for every dollar of value added generated by activity in the tourism industry, a total of \$1.84 of value added is created, placing tourism ahead of major industries such as mining (1.56), finance and insurance (1.61) and communications services (1.73).

Tourism also has a significant multiplier effect for employment. Access Economics has found that every million dollars of gross output generated by firms in the provision of goods and services to the tourism industry supports more than 12 full-time equivalent jobs in tourism and those industries that supply the tourism industry.⁵⁴

By 2020, the potential size of the Australian tourism industry is estimated in the Tourism Industry Potential⁵⁵, to be between \$115 billion and \$140 billion in overnight expenditure. To achieve this growth, significant investment in Australia's tourism product will be needed. The best hotels and tourism brands to attract Asian visitors will be the firms and brands they already recognise from home. For this reason, Asian investment in Australia will be crucial to unlocking the potential of Australia's tourism industry.

The Australian investment landscape for hotels is improving. Occupancy rates and Revenue per Available Room are both recovering well from the Global Financial Crisis, and are projected to grow strongly in the next five years.

Japan and Korea are potential sources of investment to fund the development of the new tourism product and infrastructure required to meet the 2020 potential.

The role of government in identifying new opportunities and assisting Australian companies to take advantage of opportunities in both countries

A foundation for expanded trade and investment

Australia actively promotes the development of open, transparent and competitive markets. The openness of Australia's economy to foreign investment and trade has enabled resources and energy resources industries to continue to expand in a sustainable way to meet growing demand for energy and resources commodities, technologies and services. Through the Council of Australian Governments (COAG), commonwealth and state and territory governments are actively addressing other priority issues for the non-renewable and renewable resources sector and the Australian community, including issues around land access.

By ensuring effective policy settings and initiatives are in place, including in the areas of infrastructure, skills and training, the Australian Government facilitates the timely and adequate inward investment needed to support the development of Australia's large-scale resources projects.

⁵⁴ Access Economics, National Long-Term Tourism Strategy, *Economic Modelling Consultancy Phase 1 Report*, 2009.

⁵⁵ <http://www.ret.gov.au/tourism/Documents/tmc/tourism-industry-potential.pdf>.

In addition, the Australian Government is providing targeted support for promising emerging zero and low emission technologies, which will be necessary over the longer term to meet future emissions targets.

The Australia Government's plan for a clean energy future⁵⁶ will cut pollution and drive investment in new clean energy sources such as solar, gas, low emissions coal, geothermal and wind. This will be delivered through three significant new initiatives to support investment and innovation in clean and renewable energy, including the opportunity to transform existing manufacturing businesses to refocus on meeting demand for inputs for these sectors, for example, manufacturing wind turbine blades and solar photovoltaic panels.

The \$10 billion Clean Energy Finance Corporation will drive innovative solutions to businesses seeking funds to launch clean energy and energy efficiency proposals and technologies.

The Australian Renewable Agency (ARENA) will manage \$3.2 billion in funding in existing Australia Government renewable energy grants. Funding will support research and development of renewable energy technologies and initiatives to bring them to market. Around \$1.7 billion of this funding is currently uncommitted and will be available for ARENA to provide early-stage grants and financing assistance for projects that strengthen and drive down the costs of renewable energy technologies.

Through the National Long-Term Tourism Strategy, the Australian Government is establishing the long-term policy framework to position the Australian tourism industry as a sustainable and economically vibrant industry. The TQUAL Grants program underpins this framework by stimulating sustainable growth in the tourism industry. The program, worth \$40 million over 4 years from 1 July 2011, actively encourages additional private sector investment in the development of Australia's tourism industry products, services and experiences, providing a platform for larger investment.

Providing precompetitive data to support investment in new resources discovery

The Australian Government agency, Geoscience Australia (GA), provides pre-competitive onshore and offshore geoscientific data which can reduce the level of exploration risk, and may expedite the discovery of new deposits, especially in underexplored regions. The recently completed Energy Security Program⁵⁷ was established to attract investment in offshore and onshore energy exploration. The program is the culmination of five years of offshore and onshore data acquisition and regional studies to encourage further exploration for energy resources. Precompetitive geoscientific data underpins the annual release of areas available for offshore petroleum exploration and the release of areas for carbon capture and storage (CCS).

⁵⁶ <http://www.cleanenergyfuture.gov.au/>.

⁵⁷ <http://www.ga.gov.au/energy.html>.

These initiatives form a key part of the Australian Government's strategy to increase investment in offshore exploration. The annual petroleum exploration acreage release is also supported by a comprehensive information package to assist the global exploration industry in its consideration of areas available for bidding. Further, a policy and technical delegation travel annually to Japan and Korea to provide detailed information on new exploration investment opportunities.

On 6 June, JOGMEC hosted a RET-GA industry seminar in Tokyo to promote the *2011 Australian Offshore Petroleum Exploration Acreage Release*. The seminar was well attended and supplemented by dedicated meetings. A key focus of Japanese companies remains farm-in and equity deals with the objective of securing sales opportunities and supply.

Providing tourism data to support investment

As specified in the National Long-Term Tourism Strategy, research is fundamental for industry growth. Robust research is necessary to track progressing areas such as quality; to support strategic policy priorities; and to inform investment decisions.

For this reason, a National Tourism Research Agenda has been developed and is being progressed with oversight by the Tourism Research Advisory Board (Advisory Board), one of the Strategy's nine working groups. The *2020 Tourism Industry Potential* (Potential) also provides a significant platform for this research, with both the low and high Potential scenarios implying significant additional economic benefits at 2020. To achieve these levels, increased investment and utilisation of current accommodation capacity is required, with estimates of between 40,000 and 70,000 rooms needed (at occupancy rates of 75 per cent).

Bilateral and multilateral engagement on energy and resources matters

The primary mechanism for formal bilateral engagement and cooperation between Australia and Japan and Australian and Korea on energy and resources matters occurs through annual high level senior officials' dialogues conducted by the Department of Resources, Energy and Tourism and its Japanese and Korean counterpart organisations.

The bilateral dialogues are established through a memorandum of understanding with each country and enable a discussion on key issues affecting two-way resources and energy related trade and investment. Areas of interest include new policy developments; commodity trade and investment, mining technologies and services; low emission technologies; education (resources and energy training) and research opportunities. Strong participation in discussions and cooperative activities by industry and other key stakeholders (e.g. researchers, State and Commonwealth Government agencies) is a notable feature of the bilateral dialogue process.

The Australia-Japan High-Level Group on Energy and Minerals Consultations (HLG) was established in June 2003 (previously the Australia-Japan High Level Group Energy Forecasts and Energy Resource Development which was initiated in 1985). The 34th High-Level Group meeting was held in Australia in March 2011, as was the third Australia-Japan Coal Technology Workshop.

To increase cooperation on clean coal technologies, Australia hosted the first Australia-Japan Coal Technology Workshop in Brisbane on 26 June 2009. Both the Australian and Japanese head of delegation agreed there would be mutual benefit in exchanging views on coal issues involving all the key stakeholders from government, industry and research organisations, and that this meeting should be held on an annual basis to develop broader, collaborative relationships with Japan. An important outcome of this meeting was the signing of the enhanced Aichi Coal R&D Joint Statement between Australia and Japan concerning the planning, coordination, information exchange and workshops for joint development projects in the coal technology field.

The Australia-Korea Joint Committee on Energy and Minerals Consultation and Cooperation is an annual senior officials dialogue of long-standing led by the Department of Resources, Energy and Tourism for the Australian Government. The 25th Australia-Korea Joint Committee on Energy and Minerals Consultation and Cooperation meeting was held on 15-16 March 2010 in Perth, Australia. The 26th meeting is proposed to be hosted by Korea later this year. Australia's participation in the Global Green Growth Institute (GGGI), established by the Korean Government in 2010⁵⁸, foreshadows the strengthening of bilateral cooperation aimed at fostering new export opportunities for sustainable energy solutions.

In between annual meetings, the Department engages with Japan and Korea through ad-hoc meetings and through visiting delegations (for example, a delegation from the Japanese Ministry of Economy, Trade and Industry met with RET on 3 June 2011 to follow up on the outcomes of the 34th High-Level Group meeting).

Australia also works closely with Japan and Korea in international and regional fora to achieve shared goals across a broad range of resources and energy related issues, including promoting market-based solutions to enhance resources security and sustainability.

Key multilateral energy fora engagement with Japan and Korea currently includes: Global Carbon Capture and Storage Institute (GCCSI); Carbon Sequestration Leadership Forum; International Energy Agency; Asia Pacific Economic Cooperation (APEC) Energy Working Group(s); Global Nuclear Energy Partnership; International Commission on Nuclear Non-proliferation and Disarmament; Clean Energy Ministerial process; International Renewable Energy Agency; and the International Partnership for the Hydrogen Economy.

As part of a whole of government approach, the Department seeks to further enhance Australia's energy and mineral resources related trade and investment relationship with Japan and Korea through coordinated engagement with the Department of Foreign Affairs (DFAT), Austrade, the Department of Climate Change and Energy Efficiency (DCCEE), and other government and non-government stakeholders.

⁵⁸ The Korean Government formally established the Global Green Growth Institute (GGGI) on 16 June 2010. Australia is contributing multi-year funding of \$10 million to the GGGI; <http://www.gggi.org/> and <http://www.pm.gov.au/press-office/joint-press-statement-president-republic-korea>.

Bilateral and multilateral engagement on tourism matters

Most officials-level discussions with Japan and Korea are conducted through multilateral forums. Australia shares membership of three international tourism organisations with Japan and Korea – APEC Tourism Working Group, Organisation for Economic Co-operation and Development (OECD) Tourism Committee and the United Nations World Tourism Organization. Investment features as an issue for discussion at bilateral Ministerial discussions.

One clear differentiation between the energy and minerals relationships with Japan and Korea on one hand and the tourism relationships on the other is that for tourism, Japan and Korea are both important source markets, and competitors, in the global tourism market.