



22nd January 2015

Joint Standing Committee on Treaties
Department of the Senate
PO Box 6021
Parliament House
CANBERRA ACT 2600

Dear Committee,

**RE: Agreement between the Government of Australia and the Government of India in
the Peaceful Uses of Nuclear Energy**

The South Australian Chamber of Mines and Energy (SACOME) welcomes the opportunity to provide comments to the Joint Standing Committee on Treaties in relation to the bilateral agreement between Australia and India in the Peaceful Uses of Nuclear Energy (the agreement). SACOME represents over 330 members in the resources and energy sectors in South Australia by representing, promoting, and connecting Industry with Government and Public alike.

SACOME supports the current treaty before the committee based on the following:

1. The agreement will facilitate the expansion of South Australia's uranium mining industry into new markets for the 17,500 tonnes of planned and proposed production estimated at \$1.4 billion in revenue.
2. The agreement will bolster the Indian-Australian relationship and provide the opportunity to mutually develop best practice standards in Nuclear Energy.
3. The development of Nuclear Power and associated industries delivers economic, environmental and health benefits for both India and South Australia.
4. India has shown a commitment in good faith to allow International Atomic Energy Agency (IAEA) and bilateral safeguard agreements into their civilian nuclear industry, by adopting a no first use and minimal credible deterrent nuclear weapon policy and moratorium on nuclear testing.

South Australian Overview

South Australia is home to Australia's first Uranium mine and is host to 25% of the worlds and 81% of Australia's recoverable reserves of Uranium. The majority of these reserves are located in the Olympic Dam poly-metal mine which is the worlds largest Uranium deposit. In 2013-2014 South Australia produced 4,483 tonnes of Uranium Oxide (U₃O₈) from the Olympic Dam, Beverley, Beverley North, and Four Mile mines valued at \$350 million¹. In 2013 a decision was made to place the Honeymoon In-Situ recovery mine into care and maintenance due to sluggish Uranium prices.

Future developments in South Australia include the Olympic Dam expansion that would increase the current production of Uranium from 4,000 tonnes to 16,000 tonnes of U₃O₈, Beverley Uranium mine's approval to increase production to 1,500 tonnes of U₃O₈, five projects undergoing explorative drilling, and a further twelve prospects identified².

¹ Department of State Development, South Australian mineral resource production statistics for the six month ended 30 June 2014, South Australian Government, 2014

² S.Hill, Update on South Australia's Uranium Exploration and Mining, Department of State Development, South Australian Government 2014

South Australian Uranium is exported through Port Adelaide and Darwin to customers in China, Russia, Korea, Japan, Europe and the United States. The combined exports of Uranium from South Australia and Northern Territory (Ranger Mine) constitute 25% of Australia's energy exports³.

Furthermore Uranium Mining in South Australia is widely accepted and supported by local residents with a SACOME survey in 2013 identifying 55% support the industry (25% opposed), 54% supported further development (28% opposed), and 61% would be more likely to support the industry if it provided more jobs⁴. This is reinforced by the industries ambition to implement best practice standards, the record of over 10,000 shipments and tens of thousands of tonnes of Uranium produced without serious harm to residents or the environment of South Australia.

Indian Demand

India is the fourth largest energy consumer in the world and tenth largest economy. Real GDP in India has grown by 7% per annum since 2000 to 5% per annum in 2012, but has since increased back to 7%⁵. Due to this economic growth India is looking to procure adequate energy sources to ensure this growth has the energy it needs to continue, electricity is provided to the estimated 404 million without electricity⁶, and mitigate the current rolling blackouts due to insufficient supplies of fuel needed for electricity generation⁷.

Presently India has 21 operational nuclear reactors at six sites producing 5.3 GW of electricity or approximately 2% of annual electricity production. Nuclear is a vital component in the diverse electricity generation portfolio that the Indian Government is rolling out in their consecutive 5 year plans. The twelfth 5 year plan envisages eight 700MW pressurised heavy water reactors, two 500MW fast breeder reactors, one 300MW advanced heavy water reactor, and eight light water reactors greater than 1,000MW each⁸.

However due to low sources of indigenous uranium in India, local power plants have suffered from low utilisation rates. This is especially true with those reactors that are not presently under IAEA safeguard agreements⁹. Imported Uranium will allow India to run these plants at higher utilisation rates thereby mitigating the localised power shortages.

Safeguards and Non-Proliferation

Due to India possessing nuclear weaponry outside of the Nuclear Non-Proliferation Treaty (NPT) framework, it could not previously import nuclear technology or fuel from states that were signatories to the NPT. In 2008 India was granted an exemption from the Nuclear Suppliers Group rules, allowing signatories to the NPT to trade in nuclear technology and fuel with India and thus unlocking the ability for Australia to trade its uranium. The 2008 Nuclear Suppliers Group exemption included the following commitments from India:

- separating civil and military activities;
- accepting IAEA safeguards at its facilities;
- putting in place and IAEA additional protocol on safeguards with respect to civil Nuclear facilities;
- continuing its moratorium on nuclear testing; and
- working with others towards conclusion of an international treaty to end the production of fissile material for Nuclear weapons and to prevent the spread of sensitive materials technology.

To ensure that Australia's requirements under the NPT are met, bilateral agreements include IAEA safeguards coverage with the additional protocol; fall-back safeguards in the event IAEA safeguards no longer apply; physical security requirements; and prior consent of the transfer of Australian uranium to a

³ Bureau of Resources and Energy Economics, 2014 Australian Energy Update, Australian Government

⁴ South Australian Chamber of Mines and Energy, Uranium Attitudes Survey, 2013

⁵ World Bank, Country Profiles: India, accessed Jan 2015

⁶ International Energy Agency, Energy Poverty: How to make energy access universal, September 2010

⁷ US Energy Information Administration, India's economic growth is driving its energy consumption, April 2013

⁸ World Nuclear Association, Nuclear Power in India, December 2014

⁹ *ibid*

third party, enrichment beyond 20% Uranium-235, or reprocessing. All of which are present in the agreement between India and Australia.

India has shown further commitments to limiting the use and development of Nuclear Weapons by adopting a no first use principle and minimum credible deterrent¹⁰. Highlighting the limitations on horizontal and vertical proliferation the Indian Government has placed upon itself.

Additional environmental and health considerations

The IPCC in its fifth assessment synthesis report emphasised the need to deploy all forms of low emission electricity generators. The report noted that:

“...more rapid improvements in energy efficiency and a tripling the nearly a quadrupling of the share of zero- and low-carbon energy supply from renewable energy, nuclear energy and fossil energy with carbon dioxide capture and storage (CCS), or bioenergy with CCS (BECCS) by the year 2015”¹¹

Nuclear Power provides a large source of power with low carbon emissions for India and can also assist in providing large amounts of electricity to electrify Indian Households. This is a critical point to consider since the World Health Organisation has estimated about half a million (500,000) women and children die prematurely each year due to indoor air pollution of using solid biomass fuels in stoves¹².

Should you require further clarification in this submission please contact in the first instance Dayne Eckermann on (08) 8202 9999 or deckermann@sacome.org.au. Otherwise contact myself, Nigel Long, on (08) 8202 9999 or nlong@sacome.org.au.

Yours Faithfully,

Nigel Long
Director of Corporate Social Responsibility

¹⁰ M.Clarke, S.Frühling & A.O’Neil, Australia’s Uranium Trade: The domestic and foreign policy challenges of a contentious export, 2011, p. 53

¹¹ IPCC, Fifth Assessment Synthesis Report, November 2014

¹² Indian Council of Medical Research, Indoor Air Pollution in India – A major environmental and public health concern, 2001