Jindalee Resources Ltd ABN 52 064 121 133 Level 1 3 Ord Street West Perth WA 6005 PO Box 1033 West Perth WA 6872 Western Australia Telephone: (08) 9321 7550 Facsimile: (08) 9321 7550 Email: enquiry@jindalee.net Web: www.jindalee.net

# INQUIRY INTO DEVELOPING AUSTRALIA'S NON FOSSIL FUEL ENERGY INDUSTRY

A SUBMISSION TO THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON INDUSTRY AND RESOURCES

THE STRATEGIC IMPORTANCE OF AUSTRALIA'S URANIUM RESOURCES

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LINDSAY DUDFIELD MANAGING DIRECTOR

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## SUMMARY AND CONCLUSIONS

The current regulatory environment affecting Australia's uranium mining sector is illogical. It is anti-competitive and cannot be justified on environmental, economic, scientific, or health and safety grounds.

Uranium derived products are used across the world on a daily basis in scientific, medical, commercial and industrial applications. Nations of all political persuasions, in both the industrialised and developing world, already have nuclear industries. The nuclear industry is one of the cleanest, safest industries known to man and generates cheap, reliable and safe base load power with minimal greenhouse pollutant emissions.

Australia is already the world's second largest miner and exporter of uranium oxide. Furthermore Australia is blessed with substantial geological endowment of uranium with approximately 28% of the world's recoverable resources and significant potential for new discoveries in most mainland States and the Northern Territory.

Given this natural endowment Australia should be the world leader in the production of uranium. However Australia's current regulatory environment dissuades investment in uranium exploration, favours the entrenched position of three existing producers and leaves limited opportunity for the development of other mines by new entrants. This environment is clearly anti-competitive and has sterilised the majority of Australia's uranium deposits. It is in the National Interest that this environment is changed.

Disclosure: Jindalee Resources Limited, through subsidiary Energy Metals Pty Ltd, owns advanced uranium deposits and projects in the Northern Territory and Western Australia and has an interest in the information put to the Committee and a vested interest in the outcomes, conclusions and any recommendations that may be made by the Committee.

## The Current Regulatory System is Inconsistent and Anti-Competitive

There is a huge shortfall in uranium supply. World demand for uranium oxide is on the increase with current consumption twice the rate of mine production. Public opinion is rapidly shifting in favour of nuclear power. Environmentalists, politicians and the scientific community are calling for its wider use and the industry to be expanded as a sustainable energy source over the burning of carbon rich fossil fuels.

Australia's large untapped uranium resources are strategically important with the potential to provide a substantial, safe and dependable source of future worldwide supply to meet the increasing shortfall.

However Australia's current regulatory system is inconsistent and the policy favours three large established producers over all other potential producers in Australia. The regulatory system is illogical and permits uranium mining in one State and Territory in Australia and prohibits it across the border in neighbouring States. The two beneficiaries of this system are the three established Australian producers and the Canadian uranium industry.

The cost is the lack of investment in uranium exploration, limited competition, loss of employment and wealth creation opportunities in Australia and a loss of a major contribution to Australia's economic well being without delivering any benefits.

### Leading Environmental Scientists Support the Nuclear Industry

Soaring global energy requirements, global warming and pollution requires alternative approaches and sources of power to replace the burning of fossil fuels. Australia's untapped uranium resources could make a major contribution to the soaring demand for energy and, at the same time, a reduction in global greenhouse gas emissions. The mining, processing, transport and exporting of uranium generates around 20,000 times less greenhouse emissions compared to the equivalent coal mining operation and, in the generation of power, no further greenhouse gases.

The threat of global warming to the planet has turned public opinion in favour of nuclear power. One of the founders of Greenpeace, Patrick Moore, has changed his view and now favours nuclear power as a sustainable development for the world's 6 billion inhabitants. Another prominent UK environmentalist, Sir James Lovelock, an eminent scientist and climatologist, sees an urgent need to reduce greenhouse emissions and sees nuclear power energy, the one safe available energy source, as the key to our planet's future health.

Prominent UK environmentalist, theologian and former trustee of Friends of the Earth, Bishop Huge Montefiore, wrote in 2004 "The dangers of global warming are greater than any others facing the planet. In the light of this I have come to the conclusion that the solution is to make more use of nuclear energy." He goes on to say "Nuclear energy provides a reliable, safe, cheap, almost limitless form of pollution free energy. The real reason why the government has not taken up the nuclear option is because it lacks public acceptance, due to scare stories in the media and the stonewalling opposition of powerful environmental organisations. Most, if not all, of the objections do not stand up to objective assessment." and on nuclear waste concludes "There is minimal risk of danger to posterity."

The same arguments can easily be applied in Australia. Furthermore the entrenched position of the Australian power, coal mining and export industries, the influence they have on our governments and our energy policy, along with the royalties they generate for State governments and export income for the Commonwealth, have stifled informed debate on alternatives and uranium in Australia.

#### Uranium Mining in Australia makes Economic Sense

Globally 32 counties have operating nuclear power facilities with around 17% of the world's power now nuclear generated. Major nuclear power expansion is underway in some countries, and it is increasingly likely that this will spread to many.

China and India are quadrupling nuclear capacity by 2020. China is about to start construction of eight large new reactors, four of them indigenous and four imported. India has just started up the first of its large indigenous reactors, with eight more units under construction. Japan and South Korea are steadily increasing their nuclear capacity, and Japan is very serious about boosting its nuclear share further. Finland has four reactors providing a quarter of its electricity and is now building a fifth. There is steady growth elsewhere, including Russia and eastern Europe.

The world wide demand for energy, and in particular for uranium oxide for nuclear power generation, the expanding nuclear power industry and a large shortfall in inventories and future mine supply of uranium oxide to feed this demand has led to a significant increase in the uranium oxide price and pressure for the development of new mines and sources of supply.

Much of this demand is being satisfied by Canada, the world's largest producer of uranium. In 2004 Canada produced 13,676 tonnes of uranium oxide concentrate (11,597 tonnes U) or about 30% of total world production. Its value was about C\$ 800 million.

Australia produces around 10,000 tonnes uranium oxide a year from three mines. Australia also has numerous advanced uranium deposits (989,000 tonnes uranium or 28% of the world's known recoverable resources versus Canada with 439,000 tonnes or 12%), with excellent potential to increase known resources.

However the current political environment prevents the development of new mines and discourages exploration for new deposits, to the benefit of competitor countries (principally Canada). Apart from the environmental considerations and soaring demand, the cost to Australia is the loss of uranium exploration investment and expenditure, regional development and employment opportunities, royalties and tax receipts, both State and Federal, export income and contributions to the balance of payments.

#### The Nuclear Industry is Extremely Safe

Uranium is a common and naturally occurring element widely used throughout the world, not only for power generation but also in scientific, medical, commercial and industrial applications.

World wide uranium oxide, the enriched products from its processing, power plant fuels rods and waste products from these plants are transported through highly urbanised and populated regions in over thirty countries, including Australia, on a regular daily basis without incident or any associated health risks. Similarly waste storage is managed and accounted for as part of this process and in compliance with the Nuclear Non Proliferation Agreement ("NNPA").

For continuous, reliable base-load power supply on a large scale, there are no carbonfree alternatives to nuclear power. Non-hydro renewables do have an important role, especially if coupled with hydro, but they are not alternatives. They are only intermittently available, so require full back-up from conventional sources. Natural gas is sometimes touted as a CO2-reduction strategy relative to coal. However natural gas is a versatile resource and a valuable chemical feedstock; too valuable to be used for the generation of base-load power.

Uranium mining is one of the safest industries operating in Australia. Whilst the special nature of uranium mining is recognised, and appropriate mine management systems are essential for the health and safety of all involved, uranium has been mined successfully in Australia for over 30 years without any serious loss of life or health associated issues. In contrast, coal mining world wide causes the deaths of 12,000 to 15,000 miners a year with China alone reporting 6,027 coal miner's deaths in 2004 and 6,200 in 2003.

In Australia any mining plan for uranium, including the environment impact studies and report, transport and export procedures and handling, mine waste management, mine rehabilitation plans, waste water disposal and management throughout mine life and rehabilitation, air quality and the effect on any flora and fauna of all these activities must be submitted to both the State Mine and Resources Department, the State Environmental Authority, local Shire, Department of State Development, as well as the Federal Environmental Authority and the Chief Scientist in Canberra. The proposal is then subject to an extensive period of public scrutiny and comment from any interested parties, whether or not they are directly impacted by any part or phase of the proposal.

#### Conclusion

The regulatory environment in Australia for uranium mines needs to be simplified and streamlined to encourage investment in exploration, associated technology and the development of new mines. This process, and the development of new uranium mines, will benefit all Australians, deliver significant long term economic benefits and allow participation in one of the world's fastest growing high technology, safe, clean and low emission industries that, regardless of Australia's stand, is expanding and here to stay.