

HOUSE OF REPRESENTATIVES
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INDUSTRY AND RESOURCES

 **Compass Resources NL**

Submission to

The Standing Committee on Industry and Resources

Inquiry into the development of the non-fossil
fuel energy industry in Australia

Case study into the strategic importance of
Australia's Uranium Resources

Uranium Global Supply And Demand

Uranium is a naturally occurring element that has a widespread distribution at background levels in many different rock types. Like other metals uranium becomes concentrated by various ore forming processes. The economics of extraction of a uranium product is influenced by factors such as geographic location, ease of mining, and processing, costs of meeting environmental and safety regulations, infrastructure and, of course, the grade and tonnage of the uranium deposit.

Uranium is not, nor is likely to be, in short supply in the long term. Planning for new mines or expanded production may however lag demand leading to short term supply constraints and elevated prices. The development of uranium mines will therefore be largely driven by cost considerations. The most profitable lowest cost producers will be the most secure suppliers, and marginal producers the least likely to survive. Australian uranium will compete in a global uranium market.

One reason why the supply from Australia or any other country with significant resources is not vital to the uranium supply demand balance is the concentration factor required to convert the uranium mine product into a fuel. The input value of the raw uranium ore is low compared to the nuclear power plant fuel rod. Consequently unlike oil and gas, raw material input cost can change considerably without having a substantial cost impact on the energy produced and sold by a nuclear plant.

Australia's Uranium Resource

The concept that uranium is a unique element that does not respond to the law of supply and demand is misguided. Australia is however in a fortunate position that, along with Canada and certain African countries it has substantial high grade resources of uranium that can be produced at relatively low cash costs. In this regard Australia's position for uranium places it with similar advantages to iron ore or alumina, that is it can become one of a limited number of countries that supply a significant proportion of annual world uranium consumption.

Strategically therefore Australia's uranium resources are potentially important if developed, but if they are not, marginally higher cost overseas resources will meet the demand.

If Government policy allows development of Australia's uranium resources based on normal commercial decisions by industry then Australia's uranium production will become of increased strategic significance because in any free market lower cost producers will be stronger in the marketplace. Given the Government exerts strong environmental, regulatory and security controls on Australian production, it can be argued that Australia will play an important role in establishing "best practice" controls for this industry. Such regulation should not be overly complex and bureaucratic to avoid additional unreasonable costs and maintain the comparative advantage of Australia's production. This scenario would also result in opportunities for Australian resource companies with flow-on benefits of investment, infrastructure, employment and exports.

Greenhouse Gas Emissions

There is incontrovertible evidence that from an emission standpoint uranium is a clean fuel. It is potentially the only fuel capable of filling the gap as world energy demand increases that will not result in a massive increase in both greenhouse gas emissions and waste rock disposal.

The concept that renewable energy sources such as wind, solar or wave power can meet more than a minor proportion of the projected increase in demand is totally unrealistic and suggests a serious evaluation of the subject has not been undertaken by its proponents.

As oil production is at a mature stage ahead of a projected decline, the only realistic alternative available to meet the increased energy demand is coal or nuclear. Despite likely improvements to coal power plant emissions through geosequestration, use of coal will increase greenhouse gas emissions as the industry is asked to fill the world's energy needs.

By comparison nuclear is a much more efficient energy source. The power output of a small 7 gram uranium fuel pellet is equivalent to three quarters of a tonne of coal. Nuclear plants already save 2.5 billion tonnes of carbon dioxide emissions from conventional carbon power sources.

With the drive towards hydrogen fuelled road transport, nuclear energy offers the ability to allow cost effective manufacture of hydrogen, further reducing greenhouse gas emissions.

The principal concern with uranium is to ensure the safe long term disposal of the relatively small amount of radioactive waste product generated by the nuclear power industry. Given the amount of high radioactive waste generated annually is small this should be a manageable task provided countries with nuclear power facilities comply with international accords regarding proliferation and disposal.

Structure and Regulations

The current structure of the uranium industry has been formulated in an environment where there has been a deliberate restriction placed on development. The application of the regulatory environment in this context is simplified and appears to embody a somewhat defensive and restrictive approach. There has and is to a lesser extent an active discouragement to uranium development.

If Australia is to respond to the growing opportunities presented by the nuclear industry a positive regulatory approach and an efficient and effective review and approval structure will be needed.

The current structure for approving and monitoring mining projects, involving State and Federal authorities has generally performed quite well for the Nation. In relation to uranium however there is the added need for Federal review to monitor and ensure compliance with national and international obligations. It is important this be kept simple, efficient and timely so as not to become a significant cost burden for Australian operators.

This presents a danger of duplication and unreasonable delays in the approval process for new projects. There is also a danger that Federal legislation such as the EPBC Act can be misused to delay or even destroy projects, if guidelines are not clearly established.

Adding layers of review in different agencies both State and Federal without a clear priority agency will be detrimental to development.

Conclusion

In conclusion Compass recognises that the world's nuclear power industry is embarking on a period of significant expansion. This is evidenced by the growing number of power plants on order. The resulting commercial opportunities for Australia and its resource companies will be substantial. Uranium to fuel the nuclear facilities will be developed irrespective of Australia's position. Australia lags behind Canada in exploration investment supporting the resource industry. This is partly because the equity markets in that country are used to a more pro-active government stance in relation to uranium development.

If additional uranium production is not permitted within Australia, or if compliance with regulations is costly or uncertain, other countries will fill the gap. Australian resource companies react to opportunities for the benefit of shareholders. If uranium developments are restricted in Australia then companies such as our own will be at a severe disadvantage compared to our overseas competitors. Australian companies will then need to consider offshore activities if uranium opportunities are to be pursued.

In our view increased uranium production from Australia will result in:

- economic benefits for the Nation
- give Australia a greater influence internationally in establishing and monitoring a safe industry
- contribute to a reduction in greenhouse gas emissions
- provide opportunities for Australian resource companies
- increase investment and employment
- enhance export income