Submission No. 3

Australian Academy of Technological Sciences and Engineering

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The Strategic Importance of Australia's Uranium Resources

The Academy is pleased to accept the invitation of the House of Representatives Standing Committee on Industry and Resources to make a submission to their inquiry into the Strategic Importance of Australia's Uranium Resources.

The inquiry's terms of reference are largely framed in the context of the export of uranium for use as fuel in nuclear reactors used in the generation of electricity, and the strategic implications of this trade. The Academy wishes to draw the attention of the Standing Committee to the need for an assessment of the place that nuclear power generation might have in Australia.

The Australian Government's energy white paper (June 2004) gave pride of place to coal and addressed the development of geosequestration of carbon dioxide as a way of alleviating greenhouse gas emissions. The potential for reduction in Australia's greenhouse gas emissions through the use of nuclear power, as opposed to coal, is widely discussed but there is no firm basis on which a technical assessment of these energy sources - and a range of others - in Australia can be made.

The Academy believes that it would be prudent of Australia to explore the likely contribution that a range of energy sources, including nuclear power, could make. A proper assessment would consider

- the technical nature of the sources;
- scientific and economic issues impinging on the different technologies;
- the reasons that Australia and other countries have chosen particular mixes of sources;
- the timelines associated with development of new energy sources of any kind; and
- the externalities associated with the technologies.

This last point is especially important when it comes to comparing different technologies, and requires life-cycle analyses of the various energy technologies.

The Academy would be pleased to assist the Committee in developing a review of the type outlined above.

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