With concerns sharpening as atmospheric carbon dioxide concentration passes 400 parts per million, the highest level for millions of years, and with weather patterns showing concerning changes, serious attention is turning to all low emission power generation alternatives coupled with far more efficient energy use. One of these options, well proven internationally but eschewed by the Australian Government, despite its profitable uranium oxide export trade, is commercial nuclear power.

Opponents claim nuclear power is too expensive, takes too long to build and is too risky, both operationally and in its waste disposal, while some proponents of renewable energy (notably hydro, wind and solar) believe that Australia’s emission reduction targets can economically be met by renewables alone while providing adequate security of supply.

The author, who believes Australia’s pathway to lower emissions by 2050 and beyond must involve a judicious economic mix of intermittent source renewables and baseload nuclear generation, seeks to give some economic and experiential background to better inform the debate that is currently lacking in Australia.

Lively but essentially consistent debate at a recent Australian Academy of Technological Sciences and Engineering (ATSE) National Conference entitled “Nuclear Energy for Australia?” drew the overall conclusion that there is no supportable reason to omit consideration of nuclear from Australia’s generation mix. Indeed the Conference found that to ensure that Australia is prepared when the need arises, action is needed now to plan and put into place the necessary legal and regulatory instruments as well as adequate and appropriate educational and training facilities.

ABOUT THE SPEAKER

Martin Thomas has had a lifetime career in energy consulting, concluding as a Principal of Sinclair Knight Merz. He was founding Managing Director of the Cooperative Research Centre for Renewable Energy, ACRE, Deputy Chairman of Australian Inland Energy, nonexecutive Director of the Tyree Group and EnviroMission, and Chairman of industry association Austenergy; the NSW Electricity Council; the Sydney 2000 Olympic Energy Panel and Alecto Energy Plc.

He is currently Chairman of Energy Technologies Ltd (ASX:EGY) and Dulhunty Poles Pty Ltd and of the Asia Pacific International College (APIC), and Advisor to the Board of ZBB Energy.

Mr Thomas is a past President of the Institution of Engineers, Australia, and of the Australian Institute of Energy, and a past Vice-President of the Australian Academy of Technological Sciences and Engineering. In 2008 he was awarded the Peter Nicol Russell Memorial Medal, the highest award of Engineers Australia. In 2006, he was a member of the Prime Minister’s Uranium Mining, Processing and Nuclear Energy Review (UMPNER) taskforce.