

South Australia Parliament Joint Committee on Findings of the Nuclear Fuel Cycle Royal Commission

Review of Jacobs MCM Report

NECG was retained by the South Australia Parliament Joint Committee on Findings of the Nuclear Fuel Cycle Royal Commission to undertake a review of the Jacobs MCM Report (“Radioactive Waste Storage and Disposal Facilities in South Australia, Quantitative Cost Analysis and Business Case”).

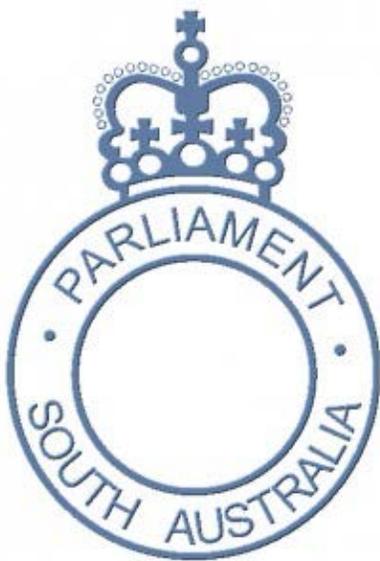
Need for credible and independent review

The South Australian government was engaged in evaluating the recommendations of the Royal Commission, including the spent nuclear fuel repository project and the Joint Committee wanted a credible and independent review of the Jacobs MCM Report.

The Project

The Jacobs MCM report explored the commercial viability of a spent nuclear fuel repository project located in South Australia that would accept spent nuclear fuel from other countries (the “Project”).

The Project would be the first serious effort to develop a multinational repository. The Project would provide a viable and beneficial solution to countries now relying on a national solution for their spent nuclear fuel and could provide much of the world requirement for spent nuclear fuel repository capacity.



“The NECG report has identified a different decision-making path that may reduce the economic risks to the state.”

“NECG also advised that many of the assumptions made in the Jacobs MCM Report might need to be reconsidered to better reflect the legal, political, regulatory and contractual frameworks necessary to support the Facility.”

[2017 Joint
Committee Report](#)



The Jacobs MCM Report was the first of multiple analyses and assessments of the Project, defining options and parameters for the Project to provide the basis for an initial assessment of Project economics. The initial assessment in the Jacobs MCM Report showed that under certain scenarios and assumptions the Project could be economically viable.

NECG conducted a detailed review

NECG brought a mix of technical, financial, economic, and nuclear experts to evaluate factors in the Jacobs MCM Report that determined commercial viability and profitability, including revenue, capital and operating cost, discount rates, risks, and the financial model used to evaluate inputs, assumptions, and scenarios.

The NECG review provided insight into critical inputs and estimates in the Jacobs MCM model, identified several assumptions that may have been insufficiently covered, and proposed a new staged decision approach for the South Australian Government.

A staged approach for South Australian government

A key finding of the NECG review was that the Project approach involved an initial 6-year scope of work that would cost several hundred million dollars prior to decision to invest in the Project.

NECG recommended that more nuanced, incremental, and detailed approach to prefeasibility activities should be developed, in line with established practice in comparable major nuclear industry undertakings internationally. This approach would involve a series of Project “decision gates” that must be passed before additional commitments are made. Focusing near-term activity and expenditures on resolving important issues early (i.e., successfully passing the decision gates for these issues) will lower overall Project risk and allow better management of the Project assessment and development process.

Project next steps would be focused on developing an Actionable Business Plan that identified initial decision gate issues that are essential for Project feasibility and that could be investigated at relatively low cost. Focusing on mission-critical steps before undertaking relatively expensive studies of costs, sites and licensing, would identify any potentially fatal flaws or significant deficiencies in the Project concept before spending significant amounts of money.

The upside of this decision gate approach is that key issues can be resolved early, the Project can be defined and shaped to reflect these key issues, and investment decisions could be delayed until more and better information was available. [NECG Report](#)

Nuclear Economics Consulting Group (NECG) applies in-depth analysis to complex economic, business, regulatory, financial, geopolitical, legal, and other challenges related to the nuclear industry. Our work is based on analytical rigor and objectivity informed by real-world industry experience.

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