



Environment Institute
of Australia and
New Zealand

EIANZ 2024 IMPACT ASSESSMENT SYMPOSIUM

26 – 27 AUGUST 2024 | BRISBANE



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Presentation materials
[| accessible here](#)

ABSTRACT

Are Current Project-based Impact Assessment Processes Adequate to Enable the Transition to a Clean, Low Carbon Economy– CASE STUDY: Sustainable Aviation Fuel in Australia

The global aviation industry has committed to decarbonise to Net Zero by 2050. The aviation industry does not currently have feasible technology to transition using batteries to electrify or hydrogen fuel cells for jet engines. The production of Sustainable Aviation Fuel (SAF) through an Alcohol to Jet Fuel (ATF) facility using organic agricultural feedstock to produce ethanol, has the potential to decarbonise the aviation industry by at least 70%, transitioning to a clean, low-carbon economy. Jet Zero Australia Pty Ltd (Jet Zero) are currently completing an Environmental and Social Impact Assessment (ESIA) process for Australia's first commercial ATF facility in Townsville, Queensland, to produce 100 M litres of SAF and 10 M litres of Renewable Diesel per year. Jet Zero are financially backed by Qantas, Airbus, Idemitsu, Queensland and Australian Governments. The current project-based Impact Assessment process has some key constraints, including ignoring the project and industry Life Cycle benefits of the 'farm to plane' circular economy, and the decarbonization quantity. The Environmental and Social Impact Assessment (ESIA) process only assesses the negative impacts and risks of any project, with the focus on the outcome of a planning permit and environmental licence approval. This case study will analyze the constraints and potential solutions of systems and structures of the ESIA process through the lenses of SAF and the aviation industry.

SPEAKER BIOGRAPHY

Lochlan Gibson

As Principal Environmental Scientist, Lochlan has over 28 years' experience specialising in project leadership and management, environmental and planning approvals, ESIA, engineering design, technical study coordination, due diligence audits and stakeholder engagement. He is an Impact Assessment specialist and Certified Environmental Practitioner with the Environmental Institute of Australia and New Zealand. Lochlan has unique experience leading ESIA and managing technical teams for major energy, resource, and infrastructure projects through life of project, with a background in leading engineering firms (over 200 people and \$30 M revenue). He has completed over 45 ESIA's and 60 Environmental Management Plans (EMP's) for projects in all States of Australia, United States of America, Trinidad and Tobago, Qatar, Vanuatu, Laos, Kiribati, Papua New Guinea, Saudi Arabia, Canada and Indonesia.

AUTHOR BIOGRAPHY

Willy Vukan

Willy has over 12 years' experience as an environmental and safety engineer and Consultant. Willy is a Member of the Environmental Institute of Australia and New Zealand. He was previously with a global engineering firm completing projects in approvals, ESIA, Environmental Site Assessment, EMS development, environmental compliance and management for a range of energy, resources and industrial projects and facilities. He was previously a Managing Director and business owner of an environmental consultancy offering approvals, ESG, compliance and management systems for a range of sectors and business clients.