

Catalysing lower-carbon mining supply in Australia

M. Read¹ T. Powell²

1. Senior Manager – Carbon Management, Orica Limited, East Melbourne, Victoria 3002.

Email: meredith.read@orica.com

2. Head of Sustainability, Orica Limited, East Melbourne, Victoria 3002.

Email: troy.powell@orica.com

Keywords: decarbonisation, low-carbon industry, tertiary abatement

ABSTRACT

Orica is committed to acting on climate change and has an important role to play in offering safe and low-carbon products as the mining sector transitions to a lower-carbon economy.

Decarbonising explosives manufacturing and catalysing new low-carbon mining supply can be achieved through a precinct-based approach. Low-carbon manufacturing precincts are clusters of geographically close businesses across multiple industries that share a goal of adopting renewable energy and decarbonising process emissions. This challenge is one Orica is taking on with disciplined capital investment, strategic partnerships, new technologies, leadership, and determination.

In an Australian first, tertiary catalyst abatement technology has recently been commissioned and is operating at our Kooragang Island (KI) facility in New South Wales (NSW). Mining customers in NSW are now benefitting from ammonium nitrate (AN) products that are almost 50 per cent less emissions-intensive than those Orica previously offered, helping them to achieve their sustainability goals.

The \$37 million project is a private-public partnership and success has required bringing together partners across Federal and State government, global engineering and technology vendors, local community groups and local carbon advisors to overcome financial barriers.

With the first phase of decarbonisation complete, Orica is now turning to longer-term options to decarbonise ammonia production and capitalise on new opportunities across mining and energy markets. A Net Zero Study has recently been formulated for Orica's Kooragang Island site and builds on precinct-based approaches to identify pathways towards achieving net zero emissions.

This paper will focus on the leadership demonstrated by Orica to decarbonise our own operations and help catalyse low-carbon industrial precincts. Shared learnings, government participation and policy enablers, stakeholder collaboration and project impacts will be communicated.

Minister for Climate Change and Energy Chris Bowen has previously commented¹:

"The government is proud to be working in partnership with companies like Orica as they use innovative technology to reduce their emissions. We congratulate Orica investing in technology that helps protect job security for the over 250 employees at the Kooragang Island facility – ensuring they remain competitive in a decarbonising global economy."

¹ Orica media release, 13 Jul 2023: Orica set to eliminate nearly 50 per cent of total greenhouse gas emissions from hunter site