2025 consultation

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NET ZERO COMMISSION 2025 – CONSULTATION PAPER

ORICA SUBMISSION

11 JULY 2025

ORICA

INTRODUCTION

Orica, headquartered in Australia, ASX100 listed and recently celebrating 150 years of operations, is one of the world's leading mining and infrastructure solutions providers, operating in more than 100 markets. From the production and supply of explosives, blasting systems, mining chemicals and geotechnical monitoring, to our cutting-edge digital solutions and comprehensive range of services, we sustainably mobilise the earth's resources.

Globally, Orica owns and operates a number of manufacturing assets. In New South Wales (NSW) Orica owns and operates the continuous manufacturing facility on Kooragang Island (KI) in Newcastle, which primarily produces ammonia and ammonium nitrate. Orica's KI site makes an important contribution to the local and broader NSW economy by supplying critical products to the mining, infrastructure, agriculture, water supply, food, dairy, and medical sectors. Orica KI is in many instances the sole manufacturer of product, within NSW. Please refer to Appendix A for a diagram which summarises the full suite of products manufactured by Orica on Kooragang Island and the full range of industries which are reliant on Orica for their supply.

Orica has an ambition to achieve net zero emissions by FY2050, with a short-term target to achieve a 30 per cent reduction in net global scope 1 and 2 emissions by FY2026, on the pathway to 45 per cent by FY2030, from FY2019 levels. At the end of the FY2024 reporting period, Orica's net global scope 1 and 2 emissions are reported as 43 per cent below the FY2019 baseline. Orica also has a renewable electricity target committing to power the business with 100 per cent renewable electricity by FY2040, with an interim step of 60 per cent by FY2030. In FY2023, Orica also established an ambition to reduce scope 3 emissions across the value chain by 25 per cent by FY2035, from FY2022 levels.

Orica is well advanced in decarbonising its global operations, having identified a pathway to ultimately realise its ambition for net zero emissions by 2050, subject to economic viability. Within this pathway is a suite of decarbonisation levers, including the option of deploying lower carbon fuels – for use as feedstock and as energy. To date, Orica has successfully reduced site emissions at KI by nearly 50 percent – abating over 1 million tonnes of CO_2-e since introducing emissions reduction technology (an Australian-first deployment) across our nitric acid plants in 2023. That particular activity and outcome has been achieved with co-investment and support from New South Wales and the federal government. Orica has also invested in innovative partnerships to support development of sustainable solutions, including the construction of the MCi Carbon CO2 capture and utilisation (CCUS) demonstration plant on Orica's KI site, which will take CO2 before its release to atmosphere and convert it into minerals for use in manufacturing construction materials, displacing the use of virgin feedstock.

The largest remaining source of unabated emissions at KI are those derived currently from Orica's use of natural gas, primarily as feedstock in the manufacture of ammonia. Ammonia manufacture is emissions intensive and deemed a hard-to-abate industrial activity. Orica's Hunter Valley Hydrogen Hub (HVHH), to be located on KI and connected to Orica's ammonia plant, aims to deliver a safe, reliable, and commercial-scale renewable hydrogen supply chain in the Newcastle industrial and port precinct. The proposed facility, which received development approval in May 2024, will produce renewable hydrogen via electrolysis using recycled water and renewable electricity via a grid-connected 50MW electrolyser in the first phase. Renewable hydrogen manufactured at the Hub is planned to gradually replace natural gas feedstock in the production of low-carbon ammonia and ammonium nitrate at Orica's KI site.

Orica welcomes the opportunity to provide feedback on the Net Zero Commission consultation paper. Within our response we have focused on questions where we believe we can provide the most value, sharing insights from our extensive industry experience.

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Question 5: What additional information and evidence should the commission consider when assessing progress towards NSW's targets for reducing net greenhouse gas emissions?

Orica supports the approach of monitoring separate sectors and balancing expectations with the realities of sector-specific activities that may be hard-to-abate.

Consistent with other jurisdictions and industry groups, consideration of both the absolute emissions inventory as well as production-adjusted emissions performance is reasonable as some sectors will be expected to grow in activity to support the transition to net zero.

Evidence such as commercial viability of technology pathways at the sectoral level, as well as market dynamics to support the production and uptake of lower carbon products should also be considered as more qualitative measures.

Question 13: What policies or programs at a sectoral level could complement the Safeguard Mechanism to support the accelerated decarbonisation of heavy industry in NSW?

The Safeguard Mechanism acts as a measure to reduce emissions from heavy industry with scope 1 emissions greater than 100,000 tCO_2-e per annum, however, does not capture all industrial facilities. Furthermore, the nature and scale of these typically hard-to-abate operations means that significant and/or transformational decarbonisation may be cost prohibitive or constrained by technology readiness and commercial viability.

For heavy industry to continue servicing their customers and meet shared climate goals, policy settings that further stimulate market demand for lower-carbon products, while also supporting the deployment of decarbonisation solutions are required. Funding measures to improve the economic viability of commercially available technologies, as well as mechanisms to support the scale-up and implementation of more nascent and emerging technology solutions are also crucial.

Question 14: What measures could accelerate industrial heat electrification in NSW, where technology is viable?

Policies and regulations that support and incentivise the development of new greenfield renewable energy assets across production, storage and transmission are an important consideration. The cost and availability of renewable energy is also a key factor for business cases on electrification of heat assets to be commercially competitive.

For sectors where electrification has not historically been a primary consideration, or where technology continues to develop, funding measures that support pre-feasibility/feasibility assessments of options, in addition to physical implementation, are also an important mechanism to further accelerate progress where practical.

Question 22: What should be included in a monitoring framework for NSW in the context of the transition to net zero, including any specific metrics and indicators?

To assess 'whole-of-economy' progress towards a net-zero transition, it is proposed that both quantitative and qualitative indicators are required. Metrics should be designed to measure both direct emissions reduction outcomes, as well as the maturity of key enablers including sector-specific technology pathways, workforce capability and readiness, community acceptance, and market dynamics.

Where facility-specific insights are required, aligning with current reporting mechanisms (such as NGER or the Safeguard Mechanism) is recommended to mitigate additional reporting burden, streamline the flow of information, and ensure consistency across all parties.

Consideration of those participating in voluntary programs (e.g. GO Scheme, Sustainable Finance Taxonomies, etc) or in the development of new technologies and markets is also crucial as not all decarbonisation investments will be recognised in a company or industry's direct scope 1 emissions. Collaboration across value chains, and the development of renewable energy precincts, shared infrastructure, and industrial ecosystems is also key to a net zero transition, and monitoring progress in this area is also an important factor.

CONCLUSION

Orica is pleased to participate in ongoing consultation on different aspects of the Net Zero Commission and welcomes the opportunity for further engagement on strategy design and development.

Questions about this submission, can in the first instance by directed to [redacted], via email – [redacted]

APPENDIX A – ORICA KOORAGANG ISLAND PRODUCT SUITE