Media Release

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INDUSTRY COMES TOGETHER TO INVEST IN DECARBONISING AUSTRALIAN MINES

Mining3 and Low Emission Technology Australia (LETA) are excited to announce the commencement of a project that will explore the potential of emerging catalytic technology to reduce methane emissions from Australian mine sites, marking a step forward in sustainable resource extraction.

Methane is a greenhouse gas emitted from industries including agriculture, natural gas and mining. Methane has a global warming potential (GWP) that is 28 times more potent than carbon dioxide[1]. The development and deployment of new technologies to mitigate methane emissions is a crucial component of Australia's journey to net zero.

The Catalytic VAM Abatement Commercialisation Project will evaluate a technology called catalytic oxidation which has the potential to operate at concentrations and temperatures below those required by alternative technology. The project aims to assess the suitability of catalytic oxidation technology for safe deployment at scale in Australia.

Phase one is an 18-month project which will evaluate promising catalysts through comprehensive testing protocols. This approach aims to provide valuable insights into catalyst performance under various conditions, supporting informed decision-making for future commercialization efforts. In parallel to testing, Phase one will also assess and suggest a commercialisation roadmap including suitable pilot designs for next phases.

Dr Neville Plint, Chief Executive Officer at Mining3, is honoured to be collaborating with LETA on this important project stating, "this project demonstrates Mining3's commitment to rapid deployment of innovative technology that addresses the sustainability needs of the mining industry in Australia."

Dr Adrian Seyfaee, Program Director Scale Up and Commercialisation at Mining3, emphasised the importance of this project for the future of the industry. "Catalytic VAM abatement technology has the potential to significantly reduce emissions from Australia's underground coal mines, an industry that many Australian communities rely on."

Mark McCallum, Chief Executive Officer of LETA said LETA is proud to be supporting this important project. "Mitigating methane emissions from mine sites is an important goal that LETA has been supporting for more than a decade. Catalytic VAM abatement technology is a promising field and we are excited to collaborate with industry colleagues on this project."

ENDS

[1] Australian Government Clean Energy Regulator; https://cer.gov.au/schemes/national-greenhouse-and-energy-reporting-scheme/about-emissions-and-energy-data/global

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BACKGROUND

Mine ventilation systems work by pumping large volumes of fresh air into mine shafts, diluting the underground gas including methane. This produces ventilation air methane (VAM), which is then vented through exhaust shafts built into the mine.

When the methane is of a sufficient concentration, the abatement of this VAM can be done with technology such as Regenerative Thermal Oxidation (RTOs). Mine sites which have a lower level of VAM are currently unsuitable for the deployment of RTOs. Catalytic oxidation technology may prove to be suitable for deployment in these mines.

ABOUT MINING3

Mining3 is committed to transforming mining by leveraging its extensive knowledge, along with that of its partners—mining companies, innovators, and technology suppliers. Our goal is to accelerate the deployment of world-class innovations, ensuring our companies are safe, sustainable, and profitable. With expertise across multiple engineering disciplines and access to cutting-edge testing facilities, Mining3 is well-equipped to manage and build consortiums that drive multi-year programs of work. With a multidisciplinary team and over 100 patents across 21 technology families, Mining3 excels in accelerating high-quality innovations to industry readiness.

ABOUT LOW EMISSION TECHNOLOGY AUSTRALIA (LETA)

LETA is a not-for-profit investment fund that invests in technologies that reduce and remove carbon emissions from energy and other heavy industries. Since 2006, LETA has been working to make proven low emission technology a part of the energy mix and taken a leadership role in developing decarbonising technologies in Australia. LETA partners with industry, Governments in Australia and abroad, internationally renowned research centres and Universities.