

Summary of Successful Linkage - Projects Proposals for Funding to Commence in 2010 by State and Organisation

New South Wales

The University of Newcastle

LP100100361 Prof Kevin P Galvin

Approved Project Title Gravity Separation and Desliming of Fine Particles

2010	\$30,000.00
2011	\$50,000.00
2012	\$50,000.00
Primary FoR	0904 CHEMICAL ENGINEERING
APAI	1

Partner Organisations

Australian Coal Research Ltd, Bloomfield Collieries Pty Ltd, Ludowici Australia Pty Ltd

Administering Organisation The University of Newcastle

Project Summary

This project will be of benefit to the Australian coal and mineral processing industries, worth tens of billions of dollars to the Australian economy each year. The objective is to establish an innovative system of cascading Reflux Classifiers for achieving both gravity separation and desliming of fine particles. Presently millions of tonnes of fine coal exist in tailings dams, unrecoverable by existing technologies such as flotation. This research will provide options for the recovery of this resource, making the remediation of these sites economically viable. The project will also support the education and training of researchers in this field of importance to Australia's future.

LP100100133 Prof Behdad Moghtaderi, Dr Elham Doroodchi, Mr Ian S Munro

Approved Project Title Enhanced Waste Heat Recovery from Low-grade Heat Sources Using a Novel Supercritical Power Cycle

2010	\$120,000.00
2011	\$108,000.00
Primary FoR	0913 MECHANICAL ENGINEERING

Partner Organisations

Granite Power Ltd

Administering Organisation The University of Newcastle

Project Summary

Compared with conventional technologies for waste heat recovery, GRANEX cycle offers higher thermal efficiencies, better economics and a greater degree of robustness. If deployed across the country to recover even 10% of the nation's waste heat, it would reduce greenhouse emissions by 9 mega tonne which is roughly 1.6% of the annual national emissions. That is equivalent to the yearly CO2 emissions from 648,000 houses or 2 million cars. The proposed research will place Australia within the forefront of the research and development activities in the field of waste heat recovery and will clearly contribute to the Federal Government's effort in the National Research Priority 1, An Environmentally Sustainable Australia.