ACARP matters because it

increases market share of Australian coals through TMS

To increase market share and to ensure Australian coals are correctly valued (at the right price band), producers need to better understand the characteristics of their various coal products, what characteristics customers need in their coal, and how Australian products compare with those from competitor nations so that marketers can position for technical advantage. This understanding requires significant research and analysis which is being facilitated by ACARP's Technical Market Support Committee across the entire mining value chain.

Industry target

- Improve the competitiveness of Australian coals.

Industry investment

- ACARP: $21.8 million
- More than 170 projects over 21 years.

Results

Research projects have developed novel test methods, enabled coal resources to be better understood, helped companies maximise their market share, particularly in times of soft demand, and kept the industry ahead of potential national and international impediments.

Novel and improved test methods

- Development of microscopy-based coal grain analysis to enable companies to reliably predict coal quality at different ash levels without the need for expensive bore core evaluation work (in progress).
- Development of techniques to analyse what coal/coke properties affect coke strength and performance in the blast furnace.
- Development of advanced analytical techniques to determine trace element levels in Australian coals, thereby understanding potential environmental impacts. A database of this information has been established with full user access.
- Evaluation of what coal properties influence grindability and mill throughput for thermal and PCI coals.
- Investigation of improvements to the Hardgrove Grindability Index test to make it more applicable to industry application.

Entry into new markets

- China's Sapozhnikov plastometer equipment was brought to Australia and updated to meet Australia's safety standards and improve repeatability. This has enabled a better understanding of the test and what coal properties and heating conditions drive the results. Repeatable Sapozhnikov tests can now be conducted in Australia and this data is often required to gain access to developing markets in China.
- Analysis of how Australian coals could be used in stamp charging processes, which has enabled producers to get a strong foothold into the lucrative Indian coking coal market, particularly for semi-hard coking products.

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Coal grain analysis.

- Demonstration of how low vitrinite coals from the Rangal Coal Measures can still become good coking coal components due to higher percentage of reactive inertinite.
- Demonstration through trace element analysis of Australian and international coals that Australian thermal products normally have lower levels of environmentally hazardous elements. This is important as international environmental regulations become more stringent.

International obligations/standards

- Facilitation of the involvement of Australian coal combustion experts into the Global Mercury Partnership to ensure the industry was kept up-to-date and to provide timely technical input into new international treaties.
- Exploration of transportable moisture limit and investigation of techniques for accurately measuring the coal's propensity for movement while at sea.
- Industry input into the development of Australian Standards which have been adopted as ISO Standards, including "Determination of float and Sink Characteristics" (ISO 1953/7936); "Froth Flotation Testing" (ISO 8858: Parts 1 to 3); "Methods for Evaluating Flocculants" (ISO 10086: Parts 1 to 3) and "Coal Flow Properties" (ISO 15117: Parts 1 and 2), and others in development.

Return on investment

- More competitive prices for specific coal types by moving from one price band to another, particularly coking coal types
- Increased value from blending opportunities
- Greater volume of sales
- Broader customer base
- Reduction in unfair contractual penalty opportunities.