



UNIVERSITY OF
NEWCASTLE

BHP CENTRE FOR SUSTAINABLE STEELMAKING RESEARCH

Leading the Transition to Near Zero Emission Steel

With the global shift to low-carbon iron and steelmaking technologies, the BHP Centre for Sustainable Steelmaking Research is at the forefront of innovation in low-carbon cokemaking, modified blast furnace and alternative iron and steelmaking processes. The Centre focuses on optimising the use of Australian iron ore and metallurgical coal in these processes, providing technical support for the Australian iron and coal industry to supply fit-for-market products and support the transition to a more sustainable position in the global marketplace.

PARTNERSHIP CAPABILITIES

- Research into sustainable ironmaking and steelmaking processes
- Technical support for iron ore and metallurgical coal optimization
- Development of electric smelting furnace and molten carbonate electrolysis technologies
- Expertise in blast furnace modification for reduced emissions

PROVEN IMPACT

- Focuses on low-carbon iron and steelmaking technologies supporting global CO2 emission reduction goals
- Optimises Australian iron ore and metallurgical coal use in sustainable steel production processes
- Supports critical export industries worth billions to the Australian economy
- Demonstrates pathways to near zero emission steel production through modified blast furnace and alternative processes

PROGRESSING STEEL PRODUCTION FOR SUSTAINABILITY

Over fifteen years of partnership between the University of Newcastle and BHP has progressed strategic activities focused on the link between fundamental iron ore and metallurgical coal properties and their performance in conventional ironmaking processes. The research focus has now shifted to the challenge of production of near zero emission steel, supporting global goals of decreasing CO2 emissions from the steel industry.



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