

Ultra Clean Coal

The Real Alternative to the NSW South Coast Charcoal Plant - through Great Australian Science

The proposed Lithgow silicon smelter needs low-ash carbon to produce a high quality grade of silicon metal. The most convenient source for the smelter operator and State Forests of NSW for this carbon is from wood charcoal, derived by burning 200,000 tonnes per annum of timber from native forests on the South Coast for the next 20 years.

Is the centuries-old method of producing charcoal still appropriate today?

Why sacrifice our wonderful forests and wildlife and splendid coastal catchment?

Australian Science has a better answer

Ultra Clean Coal is a promising alternative as a source of low-ash carbon

This is an Australian invention by the CSIRO that bypasses the archaic and economically inefficient technology for making charcoal from forests

Over the past decade, CSIRO, government and industry have invested about \$30 million in the development of Ultra Clean Coal (UCC). UCC is highly likely to be a competitor for wood charcoal in silicon smelting, subject to some final tests.UCC is Australian owned technology, with a pilot plant at Cessnock.

The UCC process results in a low-ash carbon product that appears to be well suited to the requirements of the proposed Lithgow silicon smelter. Full commercial quantities of UCC could be available as early as 2004. This corresponds to the earliest start-up time of the silicon smelter.

Ash normally occurring in coal is removed using a chemical digestion and washing process. In a full-scale plant the chemicals and minerals from the processing operation will be reused in other industries.

The UCC project has been developed mainly to supply fuel for gas turbines in electric power plants. By replacing normal coal and using combined-cycle combustion turbines, it can reduce greenhouse gas emissions by up to 24 percent.

A commercialised plant for UCC would easily supply the needs of the Lithgow smelter as a sideline.

More importantly, the use of ultra-clean coal would eliminate the need for the proposed charcoal plant on th€urobodalla's pristine *Nature Coast* (near Broulee, Mossy Point, Tomakin and Mogo), and the associated intensified forest logging and clearfelling. It would capitalise on CSIRO science, create a new Australian-owned industry with potentially massive export earnings, and contribute in no small measure to the ecological sustainability of the South Coast forests.

We call on Government to expand its commitment to the UCC project by providing funding to help fast-track the UCC project, and to require Australian Silicon to use UCC instead of charcoal in the silicon smelter. Any small delay between UCC supplies and the silicon smelter start up could be overcome with suitable low ash coal from New Zealand, shipped to Port Kembla.

Further Information:

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