

Value Adding in Australia – the Beginning of the End?

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Stop Press: Smelting and Refining of Mount Isa copper in Queensland to cease.

The first industries of Australia were farming and mining and these two have been the backbone of the nation ever since. Both are threatened by the taxaholics in Canberra.

Shorthorn and Brahman cattle arrived with the first fleet and coal was discovered by convicts at Newcastle in 1791, just three years after the First Fleet arrived. The first Merino sheep arrived in 1797 and coal mining started in 1798. Since then mining and farming have earned the majority of Australia's income.

Wool and wheat, gold and silver, butter and cheese, copper and lead-zinc, leather and tallow, iron and steel, sugar and wine, coal and hydro-carbons, meat and mutton, aluminium and uranium, timber and fish, nickel and titanium – these comprise Australia's Magic Pudding.

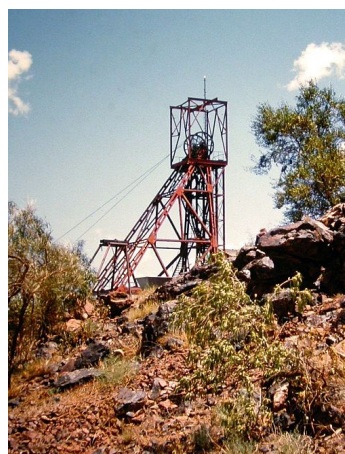


Mount Isa today - a city that earns its living by adding value to minerals

Picture credit: <http://www.celebrateisa.com.au/history.html>

But the Gillard/Green/Garnaut Carbon Tax Coalition hate our primary industries because they all depend on carbon fuels and produce the carbon dioxide that feeds our crops. Our backbone industries are seen as dreaded "polluters" and treated like noxious weeds and serpents to be removed from the green Garden of Eden.

"According to the green carbon haters, mining and farming are just:



Weeds . . .

and Serpents . . .

in the Green Garden of Eden

Our pioneering squatters and prospectors blazed the trails which Cobb and Co turned into the roads of Australia. Wool from the merinos, almost alone, carried the nation until the 1850's when metals started to create wealth – lead, copper and gold were discovered in the 1840's and 1850's. Mining started soon after and then cattle raising became profitable to feed the miners. Better roads, towns and then railways were built to move our primary products to the smelters, spinners, millers and tanners in Europe. Ever since, our great primary industries and the industries dependent on them have supported all Australians.

Mining is largely a materials handling operation, and it needs a lot of energy for mining, crushing, grinding, smelting, refining and transport.

The first copper mines extracted only high grade surface ore. They mined it selectively using human muscle power, packed it to the coast using camels, donkeys, horses and bullocks, and shipped it on sailing clippers to smelters in Europe. All stages used politically correct "green" energy.

But "green" transport moves slowly. Some loads of ore that looked profitable when they left the Peak Downs Copper Mine in central Queensland on donkeys, were sold at a loss, months later, when they landed at the copper smelter in Wales. Mining was thus an intermittent business – booming when metal prices were high, closing when prices fell.

But the high grade surface ores never last long, and the deeper primary ore is generally much lower grade. It was OK to send 40% copper ore from Cloncurry to the coast using horses and drays, but ore containing just 2% copper would not cover the costs.

So the first metal processing started with primitive on-site smelters (often using wood and charcoal, both "green" energy). Smelters removed most of the impurities leaving crude metal with +95% copper which was exported to overseas refineries. Later, Australians developed the flotation process to produce metal concentrates to feed the smelters. And trucks and trains started to carry value-added products to the coast.

The great Mount Isa Mine was discovered in 1923 - lead smelting started in 1931 and metal smelting at Mount Isa has continued ever since – 80 years of value adding in Australia.

Early in World War II, Australia found itself short of copper and Mount Isa was asked if it could produce copper. A crash program took place to convert the lead smelter to producing copper and the first blister copper was poured at Mount Isa in 1942. Refining of blister copper started in Townsville in 1959.

Mines can only be where the deposits are found. But smelters and refineries can be located anywhere between the mine and the ultimate customer for the metals. And just three factors dictate where metal processing is located – political costs, processing costs and transport costs. The political cost (tax burden) depends on the common sense of the electorate and their knowledge of where the real wealth is created. The processing and transport costs depend mainly on the local costs of wages and energy.

The first trains and power stations all used steam engines burning low cost local coal. Then came cheap diesel transport for trucks and trains. Now electric trains are again running on cheap Australian coal. This low cost carbon energy supported our high wages and ensured that mineral processing became a big business in Australia – iron and steel, lead-zinc-silver, copper, nickel, aluminium, gold, uranium, limestone, coal, oil and gas are all processed to some extent in Australia.

There is no point introducing a carbon tax that does not increase the cost and thus reduce the use of coal and diesel energy. Mining and mineral processing and transport probably consume over 50% of Australia's electricity, which is mainly coal powered with minor gas. And they are huge users of diesel fuel for utes, trucks, shovels, scrapers, drilling rigs and mobile power plants. Therefore, no matter what they say, all of Australia's mineral processing advantages are threatened by their carbon tax.

The recent Xstrata decision to phase out their world class copper smelting and refining operations in Australia tells us that the taxes, processing, transport and energy costs that Xstrata expects in Australia are already uncompetitive.

The dreamers in the Canberra cocoon always drool about "value adding". Their carbon tax will surely cause all mineral processing plants in Australia to lose value, and some will surely close. Low cost coal and diesel power will no longer support our high wages. The value adding will take place in Asia.

We are watching a slow tragedy unfold - the end of an era. Once the mineral processing plants leave, they will never come back. We will be back to the pioneering era of mining – dig it out and ship it off.

And the final tragic irony of the Isa story is this – sending partly processed copper concentrate overseas, instead of smelting it at Mount Isa, will about triple the transport burden and do the same to carbon dioxide emissions.

Viv Forbes

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Reference – Xstrata to phase out copper smelting and refining:

<http://au.ibtimes.com/articles/147308/20110518/xstrata-to-phase-out-copper-smelting.htm>

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