

## **PARLAMENT OF AUSTRALIA**

**Committee secretariat  
Senate Economics Reference Committee**

### **THE FUTURE OF AUSTRALIA'S STEEL INDUSTRY**

Steel has been produced in Australia continuously for over 100 years. The Pioneers of our industry have persevered through some very difficult periods at times with the support of Government.

It is an industry that has introduced major technological advancement, fostered and supported a whole range of other diverse industries, laboratories, universities and E.D.P. companies and was a major contributor to Australia's Defence Industry, particularly during the second World War.

Perhaps for national pride but also for their country's security and need, such small nations as Taiwan, Singapore, Indonesia, Phillipines, New Zealand etc. have their own steel industries.

Australia is in a better position than most with our abundance of raw materials and the DNA within our peoples to be first class leaders in many aspects of manufacturing, as demonstrated by the quality of our products and by previous world firsts and records established. In the case of the Port Kembla Steelworks it had in past years one of the largest Blast Furnaces and established world record blast furnace production tonnages. The steel quality from this plant currently is world class. In recent years, it was exporting this steel (hot rolled coil & slab) world wide particularly to Japan & South Korea, until of course the mining boom propelled the Australian dollar "through the roof"

Due to the perseverance of engineers, management and operators, Port Kembla (Whyalla & New Zealand) Steelworks has been constantly improved, updated and made more efficient, to stand today as modern as the leading world steelworks.

All this talk of "lets go high tech" to replace "old world" manufacturing is rubbish and only demonstrates the ignorance of those pushing this line.  
"High Tech" does not exist or is developed in isolation.  
"High Tech" in the main is developed because there is a need. eg: space programme, war, competition etc. This need is demonstrated with the Port Kembla Steelworks which employs the most sophisticated, complex & up-to-date high technology processes and equipment. Just one such example is a nukulonic thickness gauge which travels across the Hot Coil Steel Strip as it exits the last Hot Strip Mill Finishing Rolling Mill Stand at 60 Km/hr to ensure a constant thickness measuring to within 2 microns.

This sophisticated mill adaptive control system automatically adjusts mill rolling parameters should the thickness gauge detect any drift away from customer specified tolerances. Support and supply for this gauge and the many others employed, is provided by Ansto from the Lucas Heights establishment.

There is often talk labelling the steel industry as a "sunset" or "old world" industry and that Australia's future prosperity is in high-tech, services, mining natural gas and agricultural. Certainly technology is being applied to these industries, but it is also being applied to the steel industry with huge expenditure to both develop new steel specifications, and advances in processes and equipment.  
Australian scientists, chemists and engineers have been heavily involved in this from the first steel cast.

Each Australian Steel Works has an in house laboratory and combines with various universities for research & problem solving.

It would be a travesty to halt this process now and reduce Australia to a technology wasteland dependent on outside input.

Any talk that the steel industry is an "old world" industry is misguided. Over the past 20 years, world steel production has doubled from around 750 million tonnes to 1550 million tonnes per annum currently. This rate of increase will continue into the future as second and third world countries progressively improve living standard enticed by the ready availability of media showing advanced world living standards

As stated, steel manufacturing is still evolving and BlueScope Steel (P.K. Steelworks) is right in the "thick of it" with the development (with SMS of Germany) and operation of the Nucor Steel Strip Casting & Rolling Plant at Crawfordsville Indiana, America, which commenced production in 2002 after a 2 year research pilot plant developed within the Port Kembla Steelworks code named Project "M".

Nucor has steadily been brought to full production with its product sold into the American market. To supervise the construction and commission the BlueScope Plant, 12 employees and their families were seconded from the Port Kembla Steelworks to reside in Indiana.

Do not be misguided by the argument that the development and manufacture of renewable energy plant and equipment can replace traditional manufacturing industry; it won't!!

Yes Australia will do foundation & perhaps some steel work (depends on Government ruling re Australian Steel use in projects) but all of the high-tech equipment for wind turbines, mirror systems & solar cells (the only practicable renewable energy technology) is being manufactured and developed in either Europe, China or America and companies in these countries have the production volumes necessary to fund the required R & D activity.

Should Australia make decisions on the steel industry with lack of historical background and on a short term projection we will finish up as just another Greece and similar countries who possess very little manufacturing with the resulting low living standard.

We have to ask ourselves; "why were our steel products competitive on the world stage twenty (20) years ago?" The minerals bonanza takes much of the blame for the strong dollar and making us complacent resulting in large wage and salary increases, so that when minerals development ceased and mineral prices collapsed, we have been left with no advantage, in fact, we are at a considerable disadvantage with our high living standard in comparison with our steel competitors. As Mr. Paul Keating recently said "The world has trimmed us down" and "we need to trim ourselves down".

However "the wheel will turn" and as living standards in China, South Korea, Japan etc. steadily increase and Australia's wage and salary levels are "trimmed down" or perhaps continue the trend of modest increases and the \$A retreats to the 60c levels, Australian manufacturing will again become very competitive.

So in the present difficult period for steel, the Government would be derelict in its duty should it let the Australian Steel Industry wither and die. Should the steel industry cease to exist, it would be virtually impossible to re-establish and we would be at the mercy of other countries for this very basic of materials.

Don't for a minute think that other countries won't use their supply supremacy as leverage, not only in regards to pricing but for political purposes.

China recently cut its export of rare earths (China has the world's major reserves -90%- of rare earths) by 50% to Japan over a dispute involving ownership of an island.

In regard to our iron ore mining industry, France has legislation in place that mandates that raw materials cannot be exported from French Territories unless they are value added or refined; hence the nickel mine in New Caledonia has its own refining plant.

BHP Billiton, in an attempt to add value to its iron ore industry spent, in the order of \$1.5B, on an iron ore direct reduction plant in the Pilbara and further vast sums in partnership with Vale of Brazil on a second direct reduction plant in Brazil. No doubt the skeletons of these unsuccessful plants would still be visible.

BHP Billiton at this time (2000) still owned the steel industry and many of the Port Kembla steelworks engineers & production people were involved in the costly attempt to achieve success. Perhaps if a greater R & D spend had been made & the location was more amenable to attract suitable scientists and engineers permanently to the project, it may have "got off the ground".

Similar to a nation's air line, a steel industry is a measure of a country's influence, success and living standards. Even small countries such as Singapore and New Zealand (4m people) have their own air lines and steel industry.

As previously stated, Australia is fortunate to have plentiful high grade raw materials but also excellent locations at Port Kembla, Whyalla, Westernport, Newcastle and Kwinana for steel plants. Should we allow these locations to be "built out" with dense high rise commercial and residential towers it would be virtually impossible to re-establish a steel industry.

Due to the vast spread & depth of technology employed in making steel & converting it to its many and varied uses, the steel industry is considered the foundation industry for all flow on manufacturing. It must be nurtured and retained through the various financial cycles that occur worldwide.

Due to Government's apathy and lack of its understanding of the national importance of the steel industry the industry has currently been allowed to shrink to the point of collapse altogether. Just bear in mind, that the public sector does not contribute any money to the economy, it only spends those taxes paid by the private sector.

In conclusion, I have only "skimmed the surface" on this issue and just mentioned some of the external work and contribution emanating from the Port Kembla Steelworks.

It would be very difficult to address this question of the steel industry without witnessing the operation of such a plant.

I therefore invite all members of the Senate Committee to visit the Port Kembla Steelworks prior to their deliberation of the issue.

V. Ross Robinson

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## AUTHOR'S BACKGROUND

I worked in the steel industry for some 42 years in various technical rolls.

Travelled overseas on many occasions to inspect steelmaking installations; to discuss steelmaking plant and equipment and arrange both design and supply contracts with leading engineering companies. During the economic downturn of the economy in the 80's as Manager Engineering for Port Kembla, I managed the modernisation of the plant,( then an asset of BHP), which was possible under the Labour Government's Button Plan.

I was fortunate during this period to have at Port Kembla, a large, competent and experienced engineering organisation to carry this \$A2B programme through to successful commissioning.