

# Prospect

September-November 2003 \$3 (inc GST)

## LNG

Technology breakthrough

### China

Massive supply potential

### Petroleum

Big and getting bigger



## Iron and steel

# Big opportunities beckon in China



**Arcing up:** This 550 m long steel-arch bridge across the Huangpu River in Shanghai is the longest of its type in the world. New infrastructure like this is one of the reasons China has become a massive consumer of steel.

China is the biggest steel market in the world — and it is about to get a lot bigger.

China is also fast underpinning the expansion of the Australian mining industry, according to Robin Chambers, an Australian corporate lawyer who has made more than 150 trips to China during the last two decades.

Addressing the sixth annual Global Iron Ore and Steel Forecast Conference in Perth on the topic of "Strengthening Australian Ties in the Chinese Iron and Steel Industry", Mr Chambers said China's rapidly expanding market for iron and steel products would offset weak demand for these commodities elsewhere in the world.

"All of this is good news for the Australian iron ore industry, which is able to provide higher quality iron ore than is available from China's own mines," Mr Chambers said.

"The Chinese steel market is growing faster than all earlier predictions. In fact, demand is expected to soar during the next decade."

China's consumption of steel exceeded 200 Mt for the first time in 2002. It is expected to exceed 250 Mt by 2005 and 300 Mt by 2010.

Fuelling this growth is a massive construction program within China, including preparations for the 2008 Olympic Games in Beijing. This will include the construction of 22 new stadiums, the renovation of 15 existing stadiums, construction of a new Olympic village and major upgrades to transport facilities over the next few years.

Besides Beijing, building construction continues apace all over China, with 80 high-

rise towers currently under construction in the Pudong precinct of Shanghai alone.

Other drivers for China's accelerating demand for iron ore and steel are the country's entry into the World Trade Organisation, which has made it a massive manufacturing base for international companies; its domestic housing boom; development of its western regions, which is consuming massive amounts of steel for infrastructure such as bridges, railways, airports etc; and machine building, highlighted by a rapidly growing car industry. In fact, China's car production increased by 30% in 2002, and will require an upgrade of its steel production to accommodate higher quality specialty steels.

While China's steel industry is predominantly State owned, the Central



Government is encouraging foreign investment in its steel plants. China is also looking for new technologies, plus logistical and management expertise from foreign investors to make its steel industry internationally competitive.

So, what does this mean for the Australian iron ore industry?

China has already moved to diversify its imports of iron ore. While Australia's iron ore exports to China increased from 24 Mt in 1999 to 32 Mt in 2000 and 37 Mt in 2001, Australia's share of China's rapidly growing iron ore imports fell during this period.

That, according to Mr Chambers, was due to Australia's inability to increase exports quickly to meet the new demand. Brazil and India gained from this situation, with Brazil increasing its exports to China by 66% and India by 54% for the three-year period to the end of 2001.

Currently, iron ore majors Rio Tinto and BHP Billiton are rapidly accelerating the development of their iron ore projects in Western Australia to take advantage of the booming steel demand in China.

Rio Tinto is fast-tracking plans to boost its Pilbara iron ore output from 74 Mt to 114 Mt per annum by 2007. That's a whopping 54% increase on current production levels.

Additionally, BHP Billiton plans to increase its iron ore output from a current level of 75–80 Mt/a to 100 Mt/a by the end of the second quarter of 2004.

Significantly, the growth plans of both companies include expansions of rail and port capacity; a factor very important for sustaining Western Australia's increase in supply capability to world markets.

At the same time, owing to the growth in Chinese demand, Robe River Iron Associates' West Angelas mine in the Central Pilbara is ramping up production much faster than originally anticipated. It is now expected to reach capacity of 20 Mt/a by early 2004, two years earlier than forecast at the mine's opening.

Portman Limited's Koolyanobbing iron ore mine expansion also gained approvals earlier this year and work has commenced to bring the new reserves into production in the first quarter of 2004.

To ensure security of long-term supplies, Chinese steel companies are keenly pursuing



**Steel in demand:** An artist's impression of the largely metal undercroft of the main stadium for the Beijing Olympic Games.

upstream investment in overseas iron ore resources such as those in Western Australia. Both Hamersley Iron and BHP Billiton have existing partnerships with Chinese steel companies, a very powerful marketing base on which to build for the future.

All of this serves to entrench Australia as a premier supplier of iron ore products into China's expanding steel industry.

Mr Chambers believes that many excellent opportunities exist for small players in the Australian iron ore industry to team up with Chinese companies to secure valuable market share in China. P

## Hismelt begins to take shape

**C**onstruction of the Hismelt pig iron plant on the Kwinana industrial strip near Perth is progressing to schedule, with procurement about 50% completed and construction about 30% completed by mid-September 2003.

About 90 workers are currently on site, with the workforce expected to peak at around 350 during the first quarter of 2004.

The A\$600 million project, representing the first commercial application of Rio Tinto's revolutionary Hismelt technology, is a significant boost for Western Australian industrial development, and will add greatly to the State's export potential.

Incorporating 20 years of development, Hismelt was initially conceived to treat iron ore fines from the Pilbara region. However, the process has developed into an extremely versatile technology able to handle a number of metalliferous feeds, and also provides significant environmental benefits compared with traditional iron-making technologies.

The final site for the Hismelt plant was selected after an extensive worldwide search. Compared with the other sites considered, construction of the plant at Kwinana offered:

- Access to existing infrastructure from previous research plant;
- Availability of skilled labour in the local region; and
- Potential synergies with local industries for raw materials and by-product take off.

Rio Tinto currently owns 60% of the project, with Nucor Corporate 25%, Mitsubishi 10% and the Shougang Group 5%.

The project is being designed and engineered by the Kvaerner Clough Joint Venture, which takes advantage of Kvaerner's long association with Hismelt through its development and Clough's local industry experience and knowledge. P



**Under way:** After 20 years of planning, Rio Tinto's revolutionary A\$400 million Hismelt pig iron plant is now rapidly taking shape on the Kwinana industrial strip south of Perth.