THE MINERAL INDUSTRY OF

SINGAPORE

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Although Singapore is a city state with limited natural resources, its location in the Strait of Malacca in Southeast Asia makes it one of the most important shipping centers in the world. The city is the world's third largest oil-refining center behind Houston and Rotterdam and is also the major oil and metal futures trading market in Asia.

Singapore's economy remained one of the strongest in the region. Information technology and skilled manpower were the main drivers of Singapore's competitiveness in the region. The country depended heavily on electronics sector to be the main engine for its economic growth. The electronics sector accounted for about 43% of Singapore's manufacturing industry, which accounted for a quarter of the economy. In 2000, the strong external demand from developed countries and the economic recovery in East Asia increased the gross domestic product by about 10% compared with that of 1999 (Far Eastern Economic Review, 2001). The economic slowdown in the United States and other developed countries could have serious impact on Singapore's economy in 2001, especially the downturn in the global electronics sector. Besides the electronics sector, Singapore has gradually become a leading financial center in Southeast Asia.

The Government planned to restructure the power sector by changing from an across-the-board monopoly to a competitive market and intended to introduce legislation in March 2001 to provide the legal basis for the changes. According the proposed legislation, power generation will be fully open to competition. Power generation companies, which were state owned, would be divested and privatized. There will be no limits on foreign ownership of electricity retailing companies. The Energy Market Authority, which will be the regulatory agency for the electricity and gas sectors, will be established to replace the Public Utilities Board. The transmission grid will continue to be managed by PowerGrid, which was a state-owned company and a regulation agency; it will become, however, an electricity trader between the power generation companies and electricity retailers. For natural gas, PowerGas will remain the monopoly owner of the gas distribution network within Singapore, but the monopoly retailing of the gas function will be ended. As a result, PowerGas will be limited to maintaining the network and monitoring gas quality. Large gas consumers, such as power-generating companies, will be allowed to buy gas directly from importers and traders (U.S. Embassy, Singapore, February 2001, Singapore Government moves toward a competitive marketplace, accessed February 21, 2001, at URL http://www.usembassysingapore.org.sg/embassy/politics/powersector2001.html).

In Singapore, the demand for construction materials was mainly driven by public construction projects. In 2000, public construction projects declined by more than 3%, and private construction activities also fell by 2%. Consequently, the demand for cement remained weak. Singapore has no integrated cement plant and relied upon clinker imports, which were then ground by local grinding operations. Because of environmental concerns, the Government planned to close down all grinding operations by 2000. Low cement market prices available from the regional producers have compelled local grind operators to take options to import, store, and distribute cement rather than importing clinker. Singapore consumed about 5 million metric tons per year of cement.

Chemicals, petroleum, and petroleum products were in Singapore's top five exports after electronics. Export value on petroleum and products totaled more than $8 billion per year. The Government planned to increase the output share of the petrochemical products in the manufacturing industry to 30% in 2010 from 24% in 2000. Petroleum refining accounted for 57% of the chemical sector's production. The four oil refining companies—ExxonMobil Corp., Shell Oil Co., Singapore Petroleum Co., and Singapore Refinery Co. (owned equally by Caltex Oil Co. and British Petroleum Co.)—had a combined output capacity of 1.26 million barrels per day. In 1999 and 2000, the refining sector operated at an average of slightly higher than 50% capacity.

Faced with competitive pressures from neighboring countries in the refining sector, the Government intended to move the petrochemical products to higher value-added downstream products because it believed that the future of the refining sector depended on increased integration with petrochemical production. It intended to produce 3 million metric tons of ethylene by 2010 and to see parallel downstream projects initiated. The Economic Development Board has been the leading agency in developing strategic plans for the industry and attracting investment into the sector. In 1999, new investment commitments in Singapore's chemical sector totaled $1.7 billion, which represented about 39% of the total investments for 1999. About $12 billion has been invested by more than 50 international companies in projects on Jurong Island. About 40% of total investments will be in the chemicals and life sciences projects (Chemical and Engineering News, 2000).

The construction of a 640-kilometer (km) natural gas pipeline from West Natuna Field in Indonesia to Singapore's Jurong Island was expected to be completed in mid-2001. Singaporean Sembawang Gas Pte signed an agreement with Indonesia's

Pertamina to import 9.2 million cubic meters per day of natural gas from West Natuna Field for 22 years. Pertamina also agreed to sell a total of 63 billion cubic meters of natural gas during 20 years to Singapore Power Co. Gas deliveries were scheduled to begin in mid-2002 through a planned 500-km natural gas pipeline from South Sumatra in Indonesia to Singapore (Iran Daily, 2000; Asian Chemical News, 2001).

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