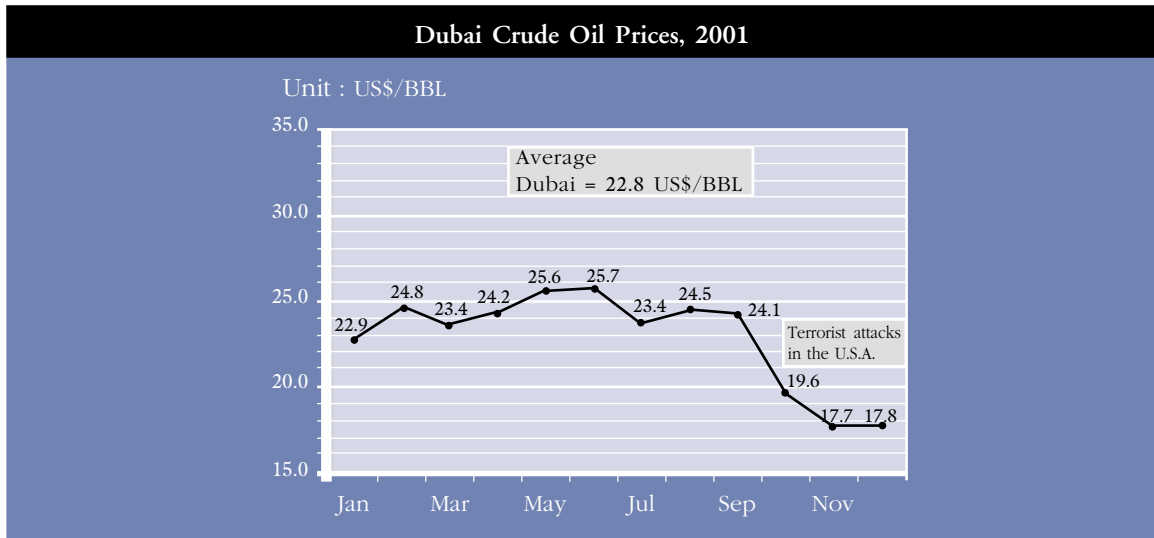


Petroleum Overview in 2001



In 2001 the world underwent its fourth recession in thirty year period, as seen in an overall global growth below 2.5%. The International Monetary Fund (IMF) estimated that the economic growth posted only 2.4% in 2001, compared to 4.7% in 2000. Much of this was due to a major setback of The U.S.A. economy, which accounted for 30.5% of global GDP and thus had an impact on growth rates in other regions.

Despite a poor economic performance, a moderate rise of petroleum at 0.2 million barrels per day (mbd), or about 0.3%, to 75.7 mbd, the price of crude oil in 2001 stayed above US\$22 a barrel (bbl) for as long as nine months—the result of three reductions in output, totalling 3.5 mbd, by OPEC members. Crude oil prices, however, after the terrorist attacks in U.S.A., dropped quickly to below US\$20 bbl for the first time in twenty-five months. It reflected the fears of global economic fallout and an increase in output by non-OPEC nations, which had invested heavily in production during 1999, when crude oil prices were high. The average price of crude oil for the entire 2001 was thus US\$22.8 bbl.

**Domestic Petroleum overview**

World-wide economic recession had a depressing effect on Thai exports, and thus managed to stifle the incipient recovery of 2000. Many sectors of the local economy consequently suffered. The terrorist attacks in the U.S.A. and subsequent operations against terrorist in Afghanistan served to damage the confidence of investors and consumers even further. However, economic stimulus measures at the grassroots level, prevented a further economic shortfall to some extent. An economic recovery rate of the latter part of the year registered at 1.8%, compared to 4.6% in 2000.

The domestic consumption of petroleum (excluding the petrochemical industry) increased by 3.7% from 2000 to 931,800 barrels per day (b/d). Of this amount, 588,100 b/d took the form of processed petroleum, while natural gas accounted for 343,600 b/d. Total petroleum procurement, whether produced domestically or imported from abroad, amounted to 1,238,700 b/d, up 6.9% from the previous year. Thai reliance on petroleum imports rose from 63% in 2000 to 65% in 2001 while Thai exports increased by 9.5% to 156,100 b/d.

#### Domestic Oil situation

The domestic consumption of refined products in 2001 amounted to 588,100 b/d. This represented a 2.3% decline after a drop of 4.5% in 2000. Much of this difference can be explained by a 73.4% cut in the use of fuel oil for power generation and the use of natural gas as a substitute.

If we exclude the dwindling use of fuel oil for power generation, however, the consumption of processed petroleum actually rose by 3.0% after a slight fall of 0.6% in 2000, signalling the beginning of better times. Almost every type of petroleum products registered growth over 2000's figures, except for cooking gas and fuel oil. This was due to a price stability during the year, and began to drop from the middle of the year. Consumption of oil products was thus able to mirror the general level of economic activity, which grew by 1.5%.

Procurement of oil products in 2001 amounted to 731,100 b/d, down 0.4% from 2000. Of this quantity, output from refineries, natural gas separation plants, and petrochemical plants in Thailand amounted to 723,000 b/d, up 2.5% from the previous year, while only 8,100 b/d were imported, 63.8% lower than in 2000. As the supply of the products outstripped demand during the year, 119,800 b/d were accordingly exported. This represents an increase of 13.4%.

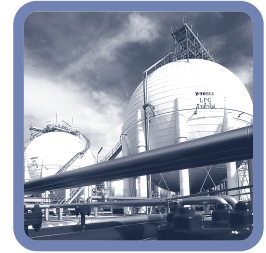
The procurement of crude oil and condensate as feedstock for refineries amounted to 826,100 b/d, up 5.3% from 2000. Of this amount, 113,700 b/d were procured from the domestic sources, up 2.9% from the year before. Thailand had, nonetheless, to import 86% of its crude oil needs from abroad, totalling 712,400 b/d or 5.6% more than in 2000. Thailand was able, on the other hand, to export 36,000 b/d of crude from Tantanwan and Benchamas fields, or 3.7% less than the year before.



#### Domestic Natural Gas Situation

The consumption of natural gas in 2001 continued to grow sharply from the previous year, rising 15.7% to 2,349.1 million standard cubic feet per day (MMscfd). Of this amount, 1,821.2 MMscfd were used in power generation. This was 16.0% higher than the year before, reflecting an increase in power consumption of 6.0% and a rise in the proportion of natural gas being used as fuel from 62% in 2000 to 69% in 2001. Natural gas was introduced as a substitute for fuel oil during the year at the Bang Pakong and South Bangkok Power Plants. It was also the fuel of choice at new power plants; namely, Ratchaburi Power Plants 1 and 2, completed in 2001

with a production capacity of 1,470 megawatts, and two new plants of independent power producers (IPPs): TriEnergy Co., Ltd. (700 megawatts) and Independent Power (Thailand) Co., Ltd. (700 megawatts), both of which were completed in 2000 and commenced full output in 2001. Besides these new sources of greatly increased demand for natural gas, industrial plants and natural gas separation plants also required considerably larger supplies. Their demand rose by 15.4% to 176.8 MMscfd and by 14.7% to 351.1 MMscfd, respectively.



Procurement of natural gas increased by 15.1% to 2,351.8 MMscfd. Of this amount, 1,853.7 MMscfd were obtained from local sources, down 1.4% from 2000, while 498.1 MMscfd was imported from Myanmar, 205.9% more than the year before.

#### Prospects for Petroleum in 2002

The International Monetary Fund expects that the world economic growth in 2002 would be around 2.4%, similar to that in 2001, which would then significantly weakened the consumption of oil to rise by 1-2%. Crude oil prices are forecast to stay at around US\$19-22 per barrel. Economic growth in Thailand has been projected to reach 2-3%, primarily driven by domestic consumption which boosted through several governmental stimulus packages i.e. state spending plan and support for the private sector. Owing to a projected healthier economy in addition to a softening a prices of world crude oil, consumption is then expected to grow slightly at a rate of 1.3% to 596,000 b/d, compared to the consecutive falls of 3.4% per annum in the previous two years. The rise is projected in all types of oil products.

Furthermore, natural gas consumption is forecast to increase 7.0% to 2,513 MMscfd, as a result of the increase of electricity demand of 7.5% couple with the completion of new power plants using natural gas as fuel, i.e. the Ratchaburi Combined Cycle Power Plant with a production capacity of 2,175 megawatts and plants under IPPs program that will generate another 1,000 megawatts.

Thailand's Petroleum Balance : 2001.....

