

THAILAND ENERGY DEMAND IN THE NEXT THREE DECADES

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Abstract

Before 1997, Thailand had been ranked one of the fastest-growing energy consumption in Asia, with an average yearly rate of 12% in the past ten years. The reason for such growth was the sheer volume increased in demand due to the rapidly expanding national economy at an average of 8-10% per annum. Since the fast economic growth collapsed in 1997, the total commercial energy consumption has been stable as about 1.2 MMBOED, of this amount, oil products accounted for 54%, natural gas 30%, coal 14%, and hydroelectric power 2%. Roughly 60% of consumption is being imported, mostly as crude oil, and the rest as coal and electricity. It is believed that the growing prosperity should come back to Thailand again. The GDP growth, as well as the energy demand, will be increasing in the next three decades. The energy consumption, which is estimated to increase yearly at 4%, 5%, 4%, 3%, 2%, and 1% during 2000-2005, 2006-2010, 2011-2015, 2016-2020, 2021-2025, and 2026-2030, will rise to 1.9 MMBOED in 2010, 2.6 MMBOED in 2020, and 3 MMBOED in 2030 respectively. Someone might doubt how to get energy supply sources for these demands. The global oil production will rise to about 80 million BOPD in 2005 and will peak at 90 million BOPD in 2010 and declined to an end in 2040.. The constrain in supplying will effect the price of oil, consequently create alternative energy sources such as phytroleum, syn. gasoline, shale oil, tar oil, coal petroleum, clean coal, nuclear, and renewable energy technologies.

The natural gas, the environmental cleaner energy source, will be increased production in the country and as well as imported from neighboring countries will be added, LNG will be imported from middle east. Low sulfur coal will be imported to serve the demand. These supplies will be probably not sufficient until 2030, some new sources of energy such as synthetic gasoline, phytroleum, nuclear power, more hydropower, clean coal, and some renewable fuels might join the list. The conservation and environmental awareness policy will also effect the energy consumption in the future.