

3.2.1 Thermal Power Plant Projects

The future plan with respect to the thermal power plants will be aimed toward the development of projects which will utilize the domestic fuels for power generation as the first priority. The domestic fuels which are used to produce electricity are natural gas and lignite. Most of natural gas is from the gulf of Thailand which is presently conveyed through pipe lines to the Bang Pakong and South Bangkok power plants. This off-shore natural gas reserve is estimated to be enough for another combined cycle rated 300 MW provided that the South Bangkok power plant may have to partially or totally operate on heavy oil. The natural gas has also been discovered on-shore at Lan Krabu in Region 2 but the amount is only enough for the operation of gas turbines with total capacity of 120 MW. Additional natural gas resource at Nam Phong, also in Region 2, is expected to be commercially available for electricity generation by the end of 1990.

The lignite reserves have been discovered in the North and South of the country. The reserve in the North is estimated at 614 million tons which is sufficient for power production of at least 2,625 MW for the whole life time of the power plant. At present, 825 MW of lignite-fired power plants is in operation and 600 MW is under construction totalling 1,425 MW. Therefore, 1,200 MW more is planned for the future which consists of four units of power plant rated 300 MW each. In the South, there are two locations where small commercial amount of lignite has been found. One is the existing mine which is the source of fuel for the existing Krabi power plant which is going to be retired in the near future. However, the remaining lignite in this reserve is still enough for power production of another 75 MW power plant. The other reserve of lignite in the South has been found at Sin Pun. Consequently, it is planned that a new Krabi power plant will be constructed with two possibilities for the selection of the power plant site. It may be either at the original site or at Sin Pun. The siting of this new Krabi plant, therefore, has to be determined later.

The imported fuel will not be incorporated into the power expansion plan until the power demand has grown so high that the power generated from the domestic fuels cannot meet the load requirement. Accordingly, the first unit of coal-fired power plant is expected to be in operation by October 1999 or just 2 years before the end of the 15 year period.