

## **Third Party Evaluator's Opinion on Metropolitan Power Distribution Project, Thailand**

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### **Efficiency**

It is notable that the loan agreement for this project was signed in September 1997, just after the 1997 Asian financial crisis originally set off by the July 2, 1997 baht devaluation in Thailand. The subsequent economic melt-down meant that major adjustments to the original project plan were needed in response to the change in the economic landscape. To the credit of all the stakeholders, revisions to the original plan were developed and approved. This shows flexibility, sensibility, and patience of all the involved parties. It also provides a prime example of good management practice in the cooperation and coordination to achieve mutual benefits. In the revision process, another major factor that contributes to the success of this project is of course the planning ability of the Metropolitan Electricity Authority (MEA), the executing agency of this project. An unexpected benefit realized by this project is that because of the intense bid for scarce public works after the economic crisis, the actual project cost was 63% below the planned budget. On the other hand, according to an interview with an MEA official, the construction and installation was delayed due mainly to liquidity problems faced by some contractors, again as a result of the financial fallout of the 1997 economic crisis. Due to this problem as well as the site-related issues mentioned in the ex-post evaluation report, the project was completed more than a year late compared to the revised schedule. After all is said and done, the main lesson for future implementations for this kind of large-scale utility projects is that it is necessary for the funding agencies to build in enough leeway for adjustment by the local executing agencies.

### **Effectiveness**

As detailed in the ex-post evaluation report, the project has achieved three main objectives. These are (1) more stable supply of electricity within Bangkok Metropolitan Area as shown by the moderate load-factors at all the substations, (2) contribution to a more reliable service to customers as evident from the fall in both the frequency and duration of power service disruption per subscriber for the overall MEA service areas, enabling the set targets to be met in 2004, and (3) an ex-post Financial Internal Rate of Return of 10.0% computed under the investment cost- and revenue-related assumptions stated in the ex-post evaluation report. A site visit and interviews with engineers and operators at the Vibhavadi primary substation reveal that the project has accomplished much more than its intended objectives. For example, in having newly-installed 230 kV primary substations such as the Vibhavadi primary substation, approximately 4-5 million baht a year of operating cost savings were realized. This is because with the new primary substation, MEA has the extra option of switching to obtaining the power supply from these primary substations at the appropriate time of day, thereby taking advantage of the cheaper "wholesale" purchasing price available for the 230 kV supply as opposed to the more expensive 115 kV supply as previously done. The new substations are also equipped with modern computer-based information and control systems that further assist in reducing maintenance time, thus contributing to service enhancement effort. Moreover, the completion of this project gives MEA the capacity to pursue further expansion projects for laying power transmission cables in underground tunnels that effectively help prevent the system from electricity supply disruption due to accidental power cut-offs from all the construction projects. Apart from this, there are also other intangible benefits realized from the projects, including the contribution to make Bangkok landscape more attractive to residents and visitors in line with the environmental policy of Bangkok Metropolitan Administration and the tourism promotional policy of Tourism Authority of Thailand. Therefore, it may be concluded that the project has exceeded expectation in terms of effectiveness.