

**Third Party Evaluator's Opinion on  
Transmission System and Substation Development Project  
First Stage, Forth Stage, Fifth Stage**

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**Relevance**

This project is an indispensable part of the overall infrastructure expansion plan to support rapid industrialization and economic growth, as well as to alleviate social ills resulting from increasing disparities in income and quality of life between the Bangkok Metropolitan Area (BMA) and the rest of the country during the 1980s. Due to several favorable conditions at that time, the country was an attractive location for FDIs. These investments need an adequate and reliable infrastructure including power (electricity supply) which the rest of the country cannot meet. Hence practically all such investments were concentrated around the BMA despite looming shortage labor supplies. Many workers had to come from provincial regions, thus further widening inequalities in economic development and whereby causing many social ills.

This project was therefore consistent with Thailand's urgent policy direction in decentralization of manufacturing and services industries to the other regions, and reducing social and economic disparities between the BMA and the regions. Since the undertaking of the project, many industrial estates, both of state and the private sector, were set up in the central, eastern and northern regions, for examples in Ayuthaya, Chon Buri, Rayong, and Lampoon. Services industries, mostly tourism related, also flourished and helped creating regional employment and economic development. Furthermore, only less than 4% of households across the country in 2004 is without electricity supply, vastly closing the substantial gap a decade earlier, for example, from over 15% in the Northern region at the initial stage of the project in 1994.

**Impacts**

The project had significantly contributed to several important direct and indirect impacts. For instances, through promoting the development of regional (rural) economy and the creation of employment opportunities in the regions, it helps to cut down the flow of immigrants from the rural regions seeking jobs in the BMA thus help reducing many social problems resulted. Also, in contributing towards the goal of nationwide electrification for all, the project helps to improve the quality of life for a large number of populations who were without electricity. Furthermore, those previously with electricity supply benefit as well through significant supply reliability improvement (i.e. less power outages, in terms of number of power failures and average duration of failures), which sees failure rates (cases/year-users) reduced by 33%, 38%, and 21%, and failure duration (total minutes/year-users) cut down by 52%, 59%, and 45% respectively for the 3 regions covered by this project.

No doubt, reduced project costs and increased demand contributed to greatly increase the FIRR, Nonetheless, improvement in supply reliability as well as in transmission and distribution loss (of between 5% to 9% among the regions) also help in improving the FIRR. Most significantly however, each power outage invariably causes untold loss in productivity, business opportunities, and other social loss, which are practically impossible to measure, but could be substantive depending on where and when outage occurs. A more stable and reliable power supply, therefore, can have unquantifiable impact on the well being of the population in general.