

## TECHNICAL ASSISTANCE COMPLETION REPORT

Division: SEID

<b>TA No. and Name</b> 3807-INO: Preparing the Regional Power Transmission and Competitive Market Development Project (Part B) - Developing a New Framework for Private Sector Participation in Power Generation Projects outside Java-Bali			<b>Amount Approved:</b> \$500,000 <b>Revised Amount:</b> \$500,000		
<b>Executing Agency</b> PT. PLN (Persero) (PLN)		<b>Source of Funding:</b> JSF		<b>TA Amount Undisbursed</b> \$10,289	<b>TA Amount Utilized</b> \$489,711
<b>Date</b>			<b>Completion Date</b>		
<b>Approval</b>	<b>Signing</b>	<b>Fielding of Consultants</b>	<b>Original</b>	<b>Actual</b>	
18 December 2001	11 April 2002	2 October 2002	31 October 2002	30 October 2004 <sup>1</sup>	
			<b>Closing Date</b>		
			<b>Original</b>	<b>Actual</b>	
			31 October 2002	30 May 2005	
<b>Description</b>					
<p>The Government of Indonesia (Government) aimed to: (i) maintain quality of power supply; (ii) facilitate electricity trade on a competitive basis in Java-Bali; and (iii) utilize private sector resources for growth of power generation capacity outside Java-Bali. To achieve these objectives, the Government planned to prepare: (i) a project to improve regional power transmission and develop a competitive electricity market in Java-Bali; and (ii) a new framework for private sector participation in power projects outside Java-Bali. There were significant imbalances in the availability of power across the regions. Outside Java-Bali, PLN (the state-owned power corporation) faced a severe power supply shortage situation up to 20 percent in some regions in 2000. Considering the high-level of public debt that steeply increased since the 1997 Asian crisis, the Government planned to meet most of the supply shortages through power plants financed by the private sector. As the power grids outside Java-Bali are fragmented and relatively small, the new power plants would be of 100–150 MW size. For this, a suitable framework had to be developed for private sector participation in power projects outside Java-Bali. A review of the project finance models was required to address the specific needs of Indonesia to help prepare “bankable” projects.</p>					
<b>Objectives and Scope</b>					
<p>The objectives of the TA were to: (i) prepare a project to improve regional power transmission; (ii) develop a competitive electricity market in Java-Bali; and (iii) prepare a new framework for private sector participation in power projects outside Java-Bali. The TA had two parts. The original scope of Part A was to: (i) help design and engineering of transmission lines in Java-Bali and Kalimantan; and (ii) create the necessary market facilities to establish and operate a competitive electricity market. However, PLN decided to conduct the design and engineering of the transmission lines using its own resources, and a major change in the scope of Part A of the TA was approved in August 2002. Part A came to focus on social development activities required for preparing indigenous people development plans (IPDPs) for <i>Loan 1982-INO: Renewable Energy Development Sector Project</i> and <i>Loan 1983-INO: Power Transmission Improvement Sector Project</i>. On the other hand, Part B remained unchanged to prepare a new framework for private sector participation in power generation projects outside Java-Bali and develop a suitable international competitive bidding process for selection of project developers. Under Part B, the TA consultants reviewed: (i) the past build-operate-transfer (BOT) model of project financing; and (ii) PLN’s proposed power projects outside Java-Bali, and prepared the selection process of independent power producers (IPPs). This TCR was prepared for Part B of the TA only since Part A was a project preparatory TA, based on which ensuring Loans 1982/1983-INO were processed in 2002. Therefore, “the TA”, in the following part of this TCR, relates only to Part B of the TA.</p>					
<b>Evaluation of Inputs</b>					
<p>The TA inputs were provided as planned and were adequate to achieve the objectives of the TA. The final inputs consisted of 11.1 person-months of international consulting services. The consultant had expertise in: (i) generation planning and engineering; (ii) formulation of public policies for infrastructure and institutional issues; (iii) financing framework for private sector power projects; and (iv) legal framework for negotiating IPP projects, with strengths in quantification of benefits for bankable projects and analyses relevant to private sector participation in the power sector. The consultants were qualified to deliver the terms of reference of the TA. The EA counterpart provided good support to the consultant team, including collecting the available data, reports and plans, and liaising with other public and private sector agencies.</p>					

<sup>1</sup> Part A was only completed on 30 October 2004 due to major change in scope, but Part B was completed earlier, on 13 November 2003. Part B was however also delayed due to: (i) the delay in the Government’s signature of the TA Letter; and (ii) the interruption of the TA implementation due to the security concerns in Indonesia from late 2002 till early 2003.

### **Evaluation of Outputs**

The TA contributed to help develop a new framework for private sector participation in power projects outside Java-Bali. The TA identified issues relating to IPP investment outside Java-Bali, set up strategies for promoting the private investment, and identified candidate IPP projects. The TA also identified several shortcomings in the direct negotiations of unsolicited proposals with potential IPPs, and the consequences were evident in the number of failed or unbalanced projects due to: (i) lack of competition and transparency in awarding power purchase agreements (PPAs); (ii) lack of PLN's control of the PPA negotiating process; (iii) lack of the Government's negotiating teams' experiences; (iv) little standardization in documentation, which resulted in the unsolicited bidders controlling the PPA drafting process; and (v) no benchmark pricing procedure to establish a clear upper tariff threshold of acceptability. The TA recommended a phased approach to stimulate IPP investment considering shortcoming of project finance market in Indonesia, and the establishment of the Indonesian IPP fund for promoting development of the local capital market and facilitating the financing of IPP projects. The TA emphasized the role of multilateral/bilateral agencies in financing IPP projects. The TA selected nine candidate IPP projects outside Java-Bali for offering to the private sector by competitive tender. The TA prepared the model procurement documents and specified the need for institutional capacity development to manage the procurement process, and evaluate and negotiate IPP proposals. The TA organized a workshop on IPP procurement including the IPP financial model for PLN to negotiate PPAs. PLN actually adopted the template of procurement documents developed under the TA for awarding the IPP concessions for medium-scale gas fired and geothermal power plants in 2004. Given these outcomes, it is considered that the TA outputs were used effectively. The overall performance of the EA is rated as satisfactory. Draft reports submitted by the consultants were thoroughly reviewed by the Government, PLN and ADB, and feedback was provided. ADB sufficiently conducted review missions for the TA. The overall performance of ADB was satisfactory.

### **Overall Assessment and Rating**

The TA is rated as successful. The TA was highly relevant to develop strategies and processes for promoting the private sector investment in power projects outside Java-Bali under a balanced risk sharing arrangement, and identify candidate IPP projects for offering to the private sector by competitive tender. The efficacy of the TA was demonstrated in particular in preparing the model procurement documents, which has been used for awarding the IPP concessions. To ensure the sustainability of its outcomes, the TA developed institutional capacity to manage the procurement process, and evaluate and negotiate IPP proposals, which was very useful to the PLN IPP task force during the renegotiation and procurement processes. The TA was efficiently carried out despite delays due to external factors and was completed within the planned budget. The Government recognized the importance of the recommendations of the TA, and its impact on the successful renegotiation of the IPP concessions.

### **Major Lessons Learned**

Due to a number of shortcomings in the direct negotiations of unsolicited proposals identified by the TA, PLN had accepted unbalanced terms of the 27 PPAs, most of which were developed from unsolicited proposals. It has taken five years for PLN to renegotiate all of the PPAs to complete the rationalization process for the power sector reform. Therefore, it was evident that competitive tendering procedures should be used in IPP selection. As the TA prepared the model procurement documents for the competitive tendering, and developed PLN's institutional capacity to manage the procurement process, and evaluate IPP proposals, and negotiate PPAs, the TA was very useful in helping PLN finalizing the renegotiations of the existing PPAs and awarding new IPP concessions.

### **Recommendations and Follow-Up Actions**

The Government has identified the development of infrastructure by greater private sector participation as one of five priority areas to achieve the Government's employment and poverty reduction targets. In this context, the strategy of the phased approach to stimulate IPP investment developed under the TA should be converted into a tangible plan for implementing IPP projects. Although the Government is committed to implement the TA recommendations, the legal framework for the private sector participation in power sector still has to be re-established. Private sector participation had been allowed under the Electricity Law No. 15/1985, which came back into force after annulment of the Electricity Law No. 20/2002 by the constitutional court in December 2004. In January 2005, the Government promulgated the Government Regulation No. 3/2005 for establishing legal basis for future private sector participation in the power sector, and is preparing a new Electricity Law. During the current transition phase of power sector reform, the risk profiles of projects should be matched to the market tolerance and ramped up as IPPs and lenders become more comfortable with Indonesian risks.

Necessary follow-up actions by the Government and PLN include: (i) re-establishing the legal framework for the IPP implementation; (ii) determining the Government's undertaking in support of IPP projects; (iii) preparing the procurement documents of the selected projects for competitive tendering; and (iv) seeking possibility of conversion of PPAs to a financial instrument if the IPP market develops. Public-private partnership arrangements in the power sector should be further promoted. Lessons learned from the TA should be incorporated in future ADB's assistance in supporting the private sector participation in power sector.