

TECHNICAL ASSISTANCE COMPLETION REPORT

Division: SEID

TA No., Country and Name			Amount Approved: \$800,000	
TA 4198-PHI: Institutional Strengthening for the Development of the Natural Gas Industry			Revised Amount: \$800,000	
Executing Agency: Department of Energy		Source of Funding Japan Special Fund	Amount Undisbursed: \$48,316.31	Amount Utilized: \$751,683.69
TA Approval Date: 16 Oct 2003	TA Signing Date: 30 Oct 2003	Fielding of First Consultants: 17 May 2004	TA Completion Date Original: 31 Dec 2005 Actual: 7 March 2007 Account Closing Date Original: 31 Dec 2005 Actual: 21 Dec 2007	
Description				
<p>Promising reserves in the off-shore Camago Malampaya gas field initiated the development of the gas industry in the Philippines. Estimated reserves of 2.3 to 4.4 trillion cubic feet supported three power plants with a combined capacity of 2,760 MW in Batangas in South Luzon. The Department of Energy (DOE) projected that demand for natural gas would increase over the next ten years and a least cost natural gas master plan was developed for the country and two major gas transmission pipelines were identified. Options to meet the projected demand for natural gas in addition to the domestic supply were liquefied natural gas and in the medium-term supply from the ASEAN gas grid. Development of the natural gas industry was critical for power generation and to avoid power shortages 2007 onwards. With power as an anchor load, natural gas demand was expected to grow from 93.7 billion cubic feet (BCF) to 145.5 BCF in 2012. Other uses of natural gas were non-power industrial uses and its use in transport as compressed natural gas. At the start of the technical assistance (TA), the Natural Gas Bill was being deliberated and prior to that Asian Development Bank (ADB) had provided support to DOE for the interim rules and regulations (IRR) governing the transmission, distribution and supply of natural gas. Building further on ADB's earlier support and the assistance provided by other bilaterals, there was a need to strengthen DOE's capacity to implement the IRR and the master plan study and to promote public-private partnership in developing the natural gas industry, particularly in the downstream gas infrastructure in the Philippines.</p>				
Expected Impact, Outcome and Outputs				
<p>The expected impact of the TA was to assist sustained economic growth and poverty reduction by improving the quality, reliability, security and affordability of energy supply. The expected outcome of the TA was to strengthen DOE's institutional capacity to: (i) develop and manage the natural gas industry; (ii) promote public-private partnerships; (iii) streamline the planning, policy-making, and regulatory functions for the industry; and (iv) introduce technical and safety standards as well as environmental and social safeguard policies to ensure the sustainable development of the natural gas industry. The TA had three main components: (i) development of planning and policy tools for administering and regulating the natural gas industry; (ii) developing required standards for the downstream areas of the natural gas industry; and (iii) providing economic, financial, and technical training to DOE and Energy Regulatory Commission (ERC) staff.</p>				
Delivery of Inputs and Conduct of Activities				
<p>The TA inputs were provided as planned and were adequate to achieve the objectives of the study. The TA was carried out by consultants engaged through a firm. Inputs consisted of 22 person-months of international and 16 person-months of domestic consulting services. The international consultants had expertise in (i) natural gas planning and management; (ii) technical, safety, and environmental standards of the downstream natural gas industry and infrastructure; (iii) contractual issues in exploration and production; (iv) energy economics with experience in natural gas pricing and project evaluation; and (v) legal and regulatory issues in the natural gas sector. The domestic consultants provided support on the energy and gas sector including gas sector policy and gas sector operations in the country, for developing a database for the industry, and on social development issues. All consultants were qualified to deliver the terms of reference of the TA. The overall performance of the consultants was satisfactory. The Executing Agency (EA) counterpart support was adequate and the EA provided good support to the team. The overall performance of the EA was satisfactory. Draft reports submitted by the consultants were thoroughly reviewed by ADB and feedback was provided. The overall performance of ADB is rated as satisfactory.</p>				

Evaluation of Outputs and Achievement of Outcome

The TA reviewed existing regulations, structures and procedures, and made recommendations and suggested options suitable for the Philippines. The TA focused on the following outputs:

- An assessment of the competitiveness of and demand for natural gas, and a review of the opportunities for developing the industrial and commercial gas markets.
- A review of the regulatory framework for the gas and electricity sectors.
- A review of the activities, training needs and staffing of the Natural Gas Office (NGO) in DOE, including recommendations for organizing resources for its permitting activities.
- A review of the permitting activities of the NGO, and the wider government process for authorizing and permitting the development of downstream gas facilities. Recommended means to simplify and facilitate this process.
- A review of the regulation of gas tariffs and options, and methodologies for the setting of tariffs.
- Recommendations for technical standards and procedures for developing gas infrastructure, technical procedures for gas network operation, planning and emergencies.
- An introduction and comparative analysis of the public private partnership options and financial incentives which may be used to promote private sector investment in the downstream gas sector.
- A review of financing options for natural gas projects and an assessment of the level of finance required to develop the Philippine gas sector.
- A review of the information resources at the NGO, recommending purchase of information technology systems, and training the NGO staff on the use of the information technology systems installed under the TA
- Training of the NGO staff in gas industry technology and in appraisal of gas projects.
- A review of the legal and regulatory framework for environmental and social safeguards for the downstream gas infrastructure and means of strengthening the DOE's capacity to manage the process.

A small module of the training on the Long-range Energy Alternatives Planning model was not completed due to the unavailability of a suitably qualified trainer who could be hired within the allocated budget. These funds were utilized to purchase technical codes and standards which are important references for the NGO in its technical permitting activities. The submission of all reports was timely and the reports met their respective terms of reference effectively and were relevant to the gas sector. The training of the NGO staff and study tours were highly relevant for the NGO and ERC staff. The outcome of the TA was improved institutional capacity of the NGO.

Overall Assessment and Rating

The TA was relevant despite the delay in the expected growth of gas demand. This slowdown has resulted due to a sluggish growth in power demand, which provides an anchor load for the gas industry and is important for the development of the downstream infrastructure. Natural gas demand will pick up with the acceleration of economic growth. The TA was highly effective in meeting its outcome. For example, a number of technical procedures developed for the NGO under the TA are being reviewed by the Technical Procedures Coordinating Committee for implementation. Once these are approved the NGO would set up formal audits to ensure compliance with these procedures. The TA was executed in an efficient manner. Adequate and appropriate support was provided by the counterpart agencies and ADB. The TA recommendations are sustainable and significant given the priority attached to the development of the gas sector and the recognition by DOE of the importance of the TA outputs. The TA outputs support the efficient development of the national gas infrastructure and contribute to overall sustainable development. Overall the TA is rated successful.

Recommendations and Follow-Up Actions

Given the intermittent progress on the passage of the Gas Bill, the Government should issue interim regulations to facilitate the development of the natural gas industry. The NGO should develop a database of quantities and prices of fuel being used by industrial and commercial to estimate gas demand and to identify priority regions for gas infrastructure development. Given that the Government has identified the gas sector as a strategic industry and the environmental benefits of gas use, mechanisms to lower domestic gas prices and make it more competitive compared with other fuels need to be considered. These include extending the scope of eligible activities that can avail benefits under the government's incentives framework. ADB can support public-private partnerships for developing a sustainable gas supply infrastructure, and promoting the use of compressed natural gas, in line with national priorities.

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