



## Completion Report

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Project Number: 46012-001  
Technical Assistance Number: 8264  
September 2017

# Papua New Guinea: Implementation of the Electricity Industry Policy

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TA Number, Country, and Name:			Amount Approved: \$1,000,000	
TA 8264-PNG: Implementation of the Electricity Industry Policy			Revised Amount: Not applicable	
Executing Agency: Department of Petroleum and Energy		Source of Funding: TASF-IV	Amount Undisbursed: \$173,402.58	Amount Utilized: \$826,597.42
TA Approval Date: 10 Dec 2012	TA Signing Date: 11 Jan 2013	Fielding of First Consultant: 11 November 2013	TA Completion Date Original: 24 Dec 2015 Actual: 30 June 2016	Account Closing Date Original: 24 Dec 2015 Actual: 21 Dec 2016
<p><b>Description</b></p> <p>In PNG, grid-connected power is largely restricted to the main urban areas, giving approximately 10% of the population access to electricity. Distributed power is rarely available outside urban centers. The supply of power in the main urban centers is often unreliable, with regular power outages and demand at times exceeding generation capacity. Lack of access to affordable, reliable power is limiting economic growth in provincial areas and lack of capacity and poor quality supply is constraining economic growth in the main urban areas. To address the range of sector issues, the government passed the Electricity Industry Policy (EIP) in 2011. The policy is designed to address three strategic objectives of the government: (i) improving access in the provision of electricity services, (ii) improving reliability of electricity supply, and (iii) ensuring that power is affordable for consumers. The government has recognized that implementation of the EIP is an ambitious undertaking and that significant support is required for successful implementation. Thus, the government requested a technical assistance (TA) from ADB to support implementation of the EIP. The government has also requested the World Bank's assistance in implementing the EIP. The proposed TA was to prepare the national electrification roll-out plan (EROP), establishing implementation capacity within the Energy Division of the Department of Petroleum and Energy (DPE), and assisting in identifying and implementing initial pilot projects.</p> <p><b>Expected Impact, Outcome, and Outputs</b></p> <p>The impact of the TA was improved quality of and increased access to electricity services. The outcome was that the DPE implements the EROP. The TA was to support the planning for implementation of the EIP through preparation of the EROP, capacity building within the DPE, and to identify and implement a pilot project. The outputs of the project were as follows:</p> <ul style="list-style-type: none"> <li>(i) DPE would prepare the electrification roll-out plan. This would include assistance to prepare targeted technical sections of the plan. This activity would follow the development of an implementation strategy to be coordinated by the DPE with the joint support of ADB and the World Bank. The TA would also assist in developing transparent procedures for prioritizing projects identified under the EROP.</li> <li>(ii) DPE would have capacity to implement the electrification roll-out plan. The TA would build capacity within the DPE to implement the EIP, including procurement capacity and project management capacity. This would include provision of international technical experts who would provide one-on-one training, workshop training, and assistance with preparing operational guidelines such as procurement guidelines and procedures for project identification, implementation management, and monitoring and reporting.</li> <li>(iii) DPE would implement one pilot project. The TA would help identify and prepare the first project for trialing the proposed project implementation mechanism envisaged under the EIP.</li> </ul> <p><b>Delivery of Inputs and Conduct of Activities</b></p> <p>After the TA signing on 11 January 2013, the government requested preparation of the EROP be postponed pending guidance from a national consultation workshop, and approval of the World Bank TA. ADB subsequently financed the <i>'Implementing PNG's Electricity Industry Policy National Stakeholders Consultation Workshop'</i> in Port Moresby on 3-5 December 2013. The workshop was opened by the Prime Minister, attended by over 100 relevant stakeholders, and was broadcasted nationally.</p> <p>Following guidance from the consultation workshop, DPE requested ADB to work closely with PNG Power Ltd and focus on the preparation of the national distribution grid expansion plan, which would form a key component of the EROP. DPE had also requested the World Bank support for preparation of the broader EROP. DPE provided clear guidance on delineation of support between the World Bank and ADB. The consultant's terms of reference were generally suitable to produce the intended outputs. The main consultant's contract was signed on 3 October 2014 and the consultants were fielded in November 2013. The quality of the consultants' work was generally satisfactory, and the executing agency expressed its satisfaction with the performance of the consultants. Extensive consultation with individual stakeholders was undertaken. A workshop was held for the PNG National Distribution Grid Expansion Plan</p>				

on 29 April 2016 in Port Moresby to review the draft report and was attended by over 30 key stakeholders. The final PNG National Distribution Grid Expansion Plan was submitted in May 2016. The consultants' reports were generally received on time. The performance of the consultants was satisfactory. The EA showed strong ownership of the TA, through hosting workshops and consultation meetings, providing office space for the consultants and providing feedback on consultants' reports. ADB held 5 review missions during TA implementation. The government highly appreciates ADB support for the TA. Overall, ADB and the EA's performance were satisfactory.

**Evaluation of Outputs and Achievement of Outcome.** The proposed TA outcome was partially met and the outputs met, as summarized below:

- (i) Outcome. The EROP was prepared through the support of ADB and the World Bank, though yet to receive National Executive Council (NEC) endorsement.
- (ii) Output 1: The TA assisted DPE to prepare the EROP by formulating the national distribution expansion plan, which was a key component of the EROP. The expansion plan includes transparent procedures for prioritizing projects and presents a practical framework for expansion of the distribution grid to increase energy access in rural areas. PNG Power Ltd and other development partners have indicated that they are utilizing the expansion plan to map out and finance priority investments.
- (iii) Output 2: The TA provided capacity building and operational guidelines for DPE to implement the EROP. This included (a) an EROP Stakeholder Consultation Workshop in December 2013, (b) training to DPE staff on prioritization of distribution extensions, and suitable procurement procedures, and (c) a workshop on the National Distribution Grid Expansion Plan in April 2016.
- (iv) Output 3: The TA identified and prepared projects for implementation under the EROP, including under the national Distribution Grid Expansion Plan. The Government has requested ADB to finance a series of investments under the Distribution Grid Expansion Plan, rather than undertake trial projects.

#### **Overall Assessment and Rating**

The TA is rated as *successful*. The TA was *highly relevant* as it directly supported implementation of key national sector policy (Electricity Industry Policy) and supported ADB's country strategy to improve energy access and promote renewable energy. The TA design relevance was maintained during implementation by ensuring clear delineation of responsibilities between development partners. The TA was *effective*. The TA outcome was likely to be met as the EROP has been prepared and is expected to be approved by the NEC. While DPE have been unable to implement the EROP yet, some identified projects are under implementation, and full implementation is expected. The TA outputs were substantially met as (i) the EROP was prepared, (ii) capacity was improved within DPE to implement the EROP, and (iii) the first subproject (grid expansion) was identified and prepared. The TA was *efficient*. In addition, the national Distribution Grid Expansion Plan provides a practical road map which is being used by various stakeholders to plan investments, thereby reducing additional project level planning costs. The TA is *likely sustainable*. Government has shown strong ownership on the deliverables under the TA, particularly on the Distribution Expansion Plan. The EROP, once approved, will provide robust guidelines for the sector. The Distribution Grid Expansion Plan has already led to investments by other development partners, and is being used as a basis for a future ADB investment. Sustainability of capacity development will depend on staff retention levels.

#### **Major Lessons**

The first lesson is that during TA design, delivery of outputs should not be made dependent on interim government approval as far as practical, to avoid potential delays. During TA implementation, delays were experienced with finalization (work carried out by the World Bank) and government approval of the EROP. As a result, the third anticipated output (pilot project) could not be completed in time. The second lesson is the importance of long term engagement in the sector reform. The development of the EROP should be seen in the context of the ongoing reform of the power sector where the government is gradually developing capacity to take over the responsibility of improving energy access and the planning function from PNG Power Ltd. The development of the EROP is a key step in that process. To achieve sustainable sector reform, long term engagement is required to assist in the various stages of the process.

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

Government approval of the EROP is still pending. ADB should monitor the approval process and maintain dialogue with DPE regarding implementation. Consideration should be given to designing a project preparatory TA to finance projects listed in the EROP.