



## Papua New Guinea: Town Electrification Investment Program - Tranche 2

Project Name	Town Electrification Investment Program - Tranche 2								
Project Number	41504-025								
Country	Papua New Guinea								
Project Status	Approved								
Project Type / Modality of Assistance	Loan								
Source of Funding / Amount	<table border="1"><tr><td colspan="2"><b>Loan 3544-PNG: Town Electrification Investment Program - Tranche 2</b></td></tr><tr><td>Ordinary capital resources</td><td>US\$ 55.90 million</td></tr><tr><td colspan="2"><b>Loan 3545-PNG: Town Electrification Investment Program - Tranche 2</b></td></tr><tr><td>concessional ordinary capital resources lending / Asian Development Fund</td><td>US\$ 5.00 million</td></tr></table>	<b>Loan 3544-PNG: Town Electrification Investment Program - Tranche 2</b>		Ordinary capital resources	US\$ 55.90 million	<b>Loan 3545-PNG: Town Electrification Investment Program - Tranche 2</b>		concessional ordinary capital resources lending / Asian Development Fund	US\$ 5.00 million
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Strategic Agendas	Environmentally sustainable growth Inclusive economic growth								
Drivers of Change	Governance and capacity development Knowledge solutions Partnerships Private sector development								
Sector / Subsector	<b>Energy</b> - Electricity transmission and distribution								
Gender Equity and Mainstreaming	Some gender elements								
Description	<p>The components proposed for financing under the requested PFR are:</p> <p>Component 1: Rehabilitation of two hydropower plants: (i) Yonki Toe of Dam (YTOD) hydropower plant, and (ii) Warangoi hydropower plant, which are currently operating below their full capacities. After rehabilitation, these plants will be capable of operating at their rated capacity of 28.0 MW-18 MW YTOD, and the 10 MW Warangoi plant. Moreover, the proposed rehabilitation will extend the economic life of these plants by another 20 to 25 years and ensure that they are brought to current standards.</p> <p>Component 2: Construction of Ramazon run-of-river small hydropower plant with a preliminary capacity of 3 MW. The project will include construction of a (i) concrete weir, (ii) 5 km pipeline, (iii) penstock, (iv) powerhouse, and (v) new access road from the existing road to the powerhouse and internal roads within the project area.</p>								

Project Rationale and Linkage to Country/Regional Strategy

On 25 November 2010, ADB approved a multitranche financing facility (MFF) of \$120.0 million comprised of Asian Development Fund (ADF) and ADB ordinary capital resources (OCR) for the Town Electrification Investment Program (TEIP). The government contributed \$30.0 million to help finance the total program cost of \$150 million. Afterwards, on 6 December 2010, ADB approved the tranche 1 of the facility, consisting of (i) \$16.4 million in ADF financing, (ii) \$40.9 million in OCR financing, and (iii) \$14.3 million of government counterpart contribution, for a total tranche 1 cost of \$71.6 million. Lastly, on 9 December 2015, ADB approved the administration of a grant not exceeding NZ\$7.0 million (equivalent to \$4.8 million) from the Government of New Zealand as additional financing for tranche 1. The MFF availability period has been extended up to 30 June 2020.

PNG has significant underutilized indigenous renewable energy sources, particularly hydropower and solar, for which the generation costs of energy are considerably lower than that of diesel. The TEIP is assisting PNG to meet the MFF outcome of improved utilization of reliable and clean power in provincial urban centers by supporting the development of least-cost renewable energy sources to (i) improve the reliability and quality of power supply in order to stimulate economic growth; and (ii) replace diesel generation, thereby reducing power generation costs and creating incentives to improve access rates. The TEIP also supports the extension of the distribution grid to increase access to electricity in the provinces.

In addition to tranche 1 and its additional financing, the government seeks ADB financing for (i) refurbishment of two existing hydropower plants; and (ii) construction of the Ramazon hydropower plant, consisting of a 3 megawatt (MW) run-of-river hydropower plant.

The government is expected to submit the periodic financing request (PFR) for tranche 2 the final tranche under the MFF by the end of August 2016 which summarizes the analysis and due diligence completed. The proposed tranche 2 will support the objectives of the MFF by improving the use of reliable, clean power in the provincial urban and peri-urban centers. The existing project management unit (PMU) under tranche 1 will be responsible for the implementation of tranche 2. The proposed tranche 2 is included as a firm 2016 project in the ADB country operations business plan, 2016-2018.

Impact	Improved economic condition of the population in the targeted provincial centers.
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**Project Outcome**

Description of Outcome	Improved utilization of reliable, clean power to three provincial urban centers.
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Progress Toward Outcome

**Implementation Progress**

Description of Project Outputs	<p>PNG Power Ltd (PPL) rehabilitates three aging hydropower plants to bring them back to their rated capacity of 28.0 MW</p> <p>PPL constructs and connects to the grid 3.0 MW of hydropower capacity</p> <p>Capacity building is undertaken for implementing agency and project beneficiaries</p> <p>The Project Management Unit renders efficient project management services.</p>
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Status of Implementation Progress (Outputs, Activities, and Issues)

Geographical Location

**Safeguard Categories**

Environment	B
Involuntary Resettlement	B
Indigenous Peoples	B

**Summary of Environmental and Social Aspects**

Environmental Aspects

Involuntary Resettlement

Indigenous Peoples

**Stakeholder Communication, Participation, and Consultation**

During Project Design	Broad stakeholder consultation was undertaken during project design, including Government officials (national, provincial, and local), landowners, development partners and NGOs.
During Project Implementation	Stakeholder consultation will continue during project implementation.

## Responsible Staff

Responsible ADB Officer	Lee, Woo Yul
Responsible ADB Department	Pacific Department
Responsible ADB Division	Transport, Energy and Natural Resources Division, PARD
Executing Agencies	<i>Energy Division of the Department of Petroleum and Energy P.O. Box 494 Waigani, NCD Papua New Guinea</i>

## Timetable

Concept Clearance	-
Fact Finding	-
MRM	28 Sep 2016
Approval	04 Jul 2017
Last Review Mission	-
Last PDS Update	30 Mar 2017

## Loan 3544-PNG

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	55.90	Cumulative Contract Awards			
ADB	55.90	-	0.00	0.00	%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	0.00	-	0.00	0.00	%

## Loan 3545-PNG

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	20.70	Cumulative Contract Awards			
ADB	5.00	-	0.00	0.00	%
Counterpart	15.70	Cumulative Disbursements			
Cofinancing	0.00	-	0.00	0.00	%

Project Page	<a href="https://www.adb.org/projects/41504-025/main">https://www.adb.org/projects/41504-025/main</a>
Request for Information	<a href="http://www.adb.org/forms/request-information-form?subject=41504-025">http://www.adb.org/forms/request-information-form?subject=41504-025</a>
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