



## Regional Sustainable Energy Industry Development Project (P152653)

EAST ASIA AND PACIFIC | Pacific Islands | Energy & Extractives Global Practice |  
Recipient Executed Activities | Investment Project Financing | FY 2016 | Seq No: 11 | ARCHIVED on 24-Dec-2020 | ISR45082 |

Implementing Agencies: Pacific Power Association, Pacific Power Association

**Key Dates****Key Project Dates**

Bank Approval Date: 29-Sep-2015

Effectiveness Date: 23-Mar-2016

Planned Mid Term Review Date: 28-May-2018

Actual Mid-Term Review Date: 08-May-2018

Original Closing Date: 31-Aug-2020

Revised Closing Date: 28-Feb-2022

**Project Development Objectives**

Project Development Objective (from Project Appraisal Document)

The project development objective (PDO) is to increase the data availability and capacity of power utilities of the Pacific Island Countries and Papua New Guinea (PNG) to enhance their ability to incorporate and manage renewable energy technologies and long-term disaster risk planning.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

**Components Table**

Name

Renewable Energy Resource Mapping Phase 1 to 3:(Cost \$2.27 M)  
Technical Assistance:(Cost \$2.57 M)  
Project Implementation Support:(Cost \$0.82 M)

**Overall Ratings**

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate

**Implementation Status and Key Decisions**

Progress towards the achievement of the Project Development Objective (PDO) remains satisfactory, despite some initial implementation delays. The project closing date extension request preceded the COVID-19 outbreak which may have a marginal impact on implementation as well, because of the current travel ban.

**Under Component 1** - Resource Mapping, Phase 1 (Satellite data-based meso-scale mapping) was completed, while Phase 2 which requires two full years of data collection is still under way. LIDARs (Light Detection and Ranging) and solar monitoring stations have been commissioned on sites and PPA is looking at receiving the data over the coming months.

**Under Component 2** - Disaster Risk Management activities are progressing well. The Consultant has delivered the final in September; it includes an assessment on PNG, Samoa and Tuvalu.



The MoU on the Mutual Aid Program was finalized, signed and became effective in December 2019. The *Online bench marking platform* has remained accessible to member utilities and third party access rule was determined on December 31, 2019.

## Risks

### Systematic Operations Risk-rating Tool

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Macroeconomic	<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low
Sector Strategies and Policies	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Technical Design of Project or Program	<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low
Institutional Capacity for Implementation and Sustainability	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Fiduciary	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate
Environment and Social	<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low
Stakeholders	<input type="checkbox"/> Low	<input type="checkbox"/> Low	<input type="checkbox"/> Low
Other	--	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial
Overall	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate	<input type="checkbox"/> Moderate

## Results

### PDO Indicators by Objectives / Outcomes

To increase the data availability and capacity of power utilities				
► Increased public information on RE resources and variability (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the increase of public information on RE resources and variability. Un-validated solar and wind resource maps are available online based on ESMAP sources. Data to validate this has been collected from 8 solar stations and 3 wind stations to date.			



► Increased available planning tools and training to both PPA and utilities in the use of these tools (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the increase in available planning tools for use by PPA members and training of PPA and utility staff in the use of these tools. PowerFactory software has been procured and used by PPA as well as power utilities via remote access.			
► Improved technical and institutional capacity of PPA and power utilities (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	100.00	100.00	100.00
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the improved technical and institutional capacity of power utilities. A Training Needs Assessment and Career Development Initiatives study was completed in 2017 and there have been several training workshops held on Grid connection of RE, VRE Grid Integration, RE & EE Guidelines and benchmarking.			
► Increased planning capacity for disaster recovery and risk reduction (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	2.00	3.00
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the number of power utilities that have adopted an investment plan in resilience based on the needs assessment developed through the project. Investment Plans for 2 utilities – Samoa Electric Power Corporation (EPC) and Tonga Electricity Commission (TEC) have been prepared and workshops held on investment plans.			

### Intermediate Results Indicators by Components

Renewable Energy Resource Mapping Phase 1 to 3				
► Phase 1 (satellite based) resource mapping assessment of solar and/or wind capacity across 10 PICs completed and available (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Aug-2020
Comments:	This indicator measures completion and availability of resource-mapping assessment of solar and/or wind capacity across all PICs. Un-validated solar and wind resource maps are available online based on ESMAP sources.			



►Phase 2 (ground measurements) resource mapping assessment of solar and/or wind capacity across 10 PICs completed and available (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures completion and availability of resource-mapping assessment of solar and/or wind capacity across all PICs. Data to validate Phase 1 has been collected from 8 solar stations and 3 wind stations to date.			
►Phase 3 (validation) resource mapping assessment of solar and/or wind capacity across 10 PICs completed and available (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Aug-2020
Comments:	This indicator measure completion and availability of resource-mapping assessment of solar and/or wind capacity across all PICs. Phase 3 can only commence once Phase 2 has been completed.			

Technical Assistance				
►Training courses/workshops provided (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	6.00	11.00	6.00
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the number of workshops provided under the project.			
►Planning tool available (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the availability of a grid-stability modeling planning tool available to power utilities through the PPA.			
►Reports on industry guidelines and competency standards available through PPA (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target



Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the number of reports on industry guidelines and competency standards for the selected PICs to consider, which will available through PPA.			
► Post-disaster and/or disaster-risk reduction needs assessment developed (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	This indicator measures the number of needs assessments developed for targeted power utilities. The needs assessments will either focus on resilient recovery/reconstruction in post-disaster situations or on disaster-risk reduction and resilience building in normal circumstances (i.e., during “peace” time). Investment Plans for 2 utilities – Samoa Electric Power Corporation (EPC) and Tonga Electricity Commission (TEC) have been prepared and workshops held on investment plans.			

Project Implementation Support				
► PPA publishing reports on grievance redress mechanism and how issues were resolved (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	Yes	Yes	Yes
Date	10-Jul-2015	13-May-2020	17-Dec-2020	31-Dec-2021
Comments:	The GRM link on the PPA website active.			

## Performance-Based Conditions

### Data on Financial Performance

#### Disbursements (by loan)

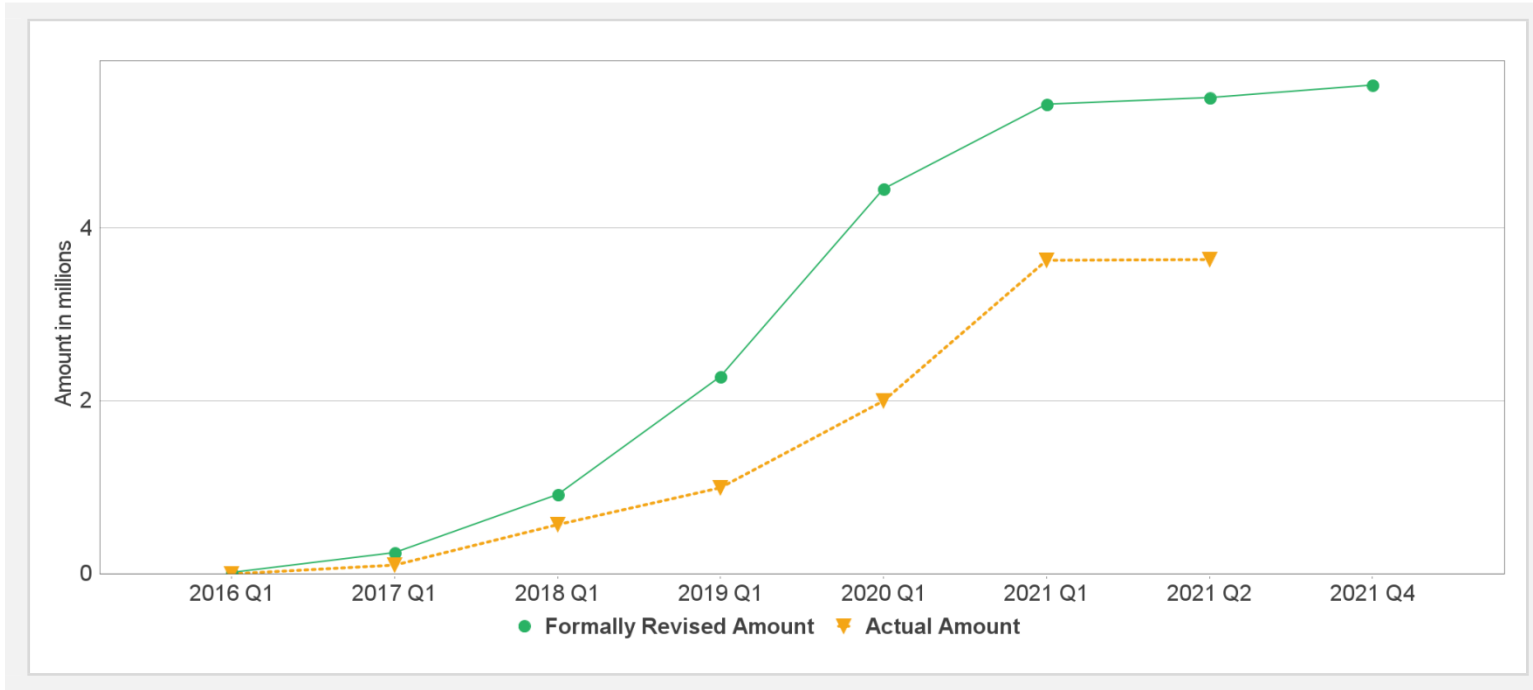
Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P152653	TF-A1235	Effective	USD	1.92	1.92	0.00	1.56	0.36	81%
P152653	TF-A1342	Effective	USD	3.47	3.47	0.00	1.88	1.59	54%
P152653	TF-A1505	Closed	USD	0.27	0.20	0.07	0.20	0.00	100%

#### Key Dates (by loan)



Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P152653	TF-A1235	Effective	03-Dec-2015	03-Dec-2015	23-Mar-2016	31-Aug-2020	28-Feb-2022
P152653	TF-A1342	Effective	03-Dec-2015	03-Dec-2015	23-Mar-2016	31-Dec-2017	28-Feb-2022
P152653	TF-A1505	Closed	03-Dec-2015	03-Dec-2015	23-Mar-2016	30-Jun-2020	30-Jun-2020

**Cumulative Disbursements**



**PBC Disbursement**

PBC ID	PBC Type	Description	Coc	PBC Amount	Achievement Status	Disbursed amount in Coc	Disbursement % for PBC
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**Restructuring History**

Level 2 Approved on 15-Dec-2017 ,Level 2 Approved on 09-May-2020 ,Level 2 Approved on 27-Jul-2020

**Related Project(s)**

There are no related projects.