

# Te Tarai Vaka Activity Progress Report: ADB Loan 3193/Grant 0415-COO Renewable Energy Sector Project

## Summary

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### Activity information

<b>Activity Title</b>	Cook Islands Renewable Energy Sector Project
<b>Goal</b>	Increased energy security in an environmentally sustainable manner.
<b>Intended outcomes</b>	The outcome will be increased access to a higher share of electricity generated by renewable energy sources.

### Funding information

<b>Start and end dates</b>	9 February 2015 – 31 December 2017
<b>Total cost</b>	NZD33.22 million* Note that all reported costs will be in NZD
<b>Reporting period</b>	1 June – 30 September 2015

\* conversion rate (19/6/2015)

### Progress report preparation

<b>Prepared by</b>	Entura Team
<b>Others involved or consulted</b>	REDD staff, MFEM,DCD staff, ADB, Steering Group, Outer Islands Mayors, Councils Members, Aronga Mana, land owners and various stakeholders, CITTI, TAU staff and Board of Directors, Environment Service, Ministry of Justice, CIIC Staff and Board of Directors, Audit Office, Crown Law. Skills International with CITTI, Ged McCombie, Willis New Zealand (Government Insurers), John Stanley, EU Samoa Office,
<b>Date of report</b>	Mid October

## Key Conclusions and Necessary Actions

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This second Progress Report has been prepared by Entura (Project Owners Engineers, POE) in cooperation with the Cook Islands Government (CIG) Project Steering Group (PSG) for the ADB funded Loan 3193/Grant 0415-COO Renewable Energy Sector Project. The Progress report provides an update to the ADB and all relevant stakeholders on project progress between 1 June (commencement of reporting period) 2 and 31<sup>st</sup> September (end of reporting period).

Activities undertaken in the reporting period focused on submission of the project inception report and 1<sup>st</sup> Progress Report, preparation of the Atiu due diligence, land agreements and resettlement plans, preparation and advertising the Request for Tender for solar PV modules procured with PEC funding as well as preparing draft bidding documents for the turnkey package. The period also saw the tendering of roles in the Project Management Unit, for the Project Manager and the Finance Specialist.

## Review of Progress to Date

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### A. Project Implementation

#### 1. Administration

The POE works directly with the Implementing Agency, REDD and during this reporting period the team used the REDD office intermittently, with international staff working from their home offices.

Successful tenderers for the PMU positions had not started during the reporting period, and this has delayed establishment of the PMU.

## 2. Procurement.

Recruitment of the Finance Specialist and Project Manager roles to form the PMU was progressed during this reporting period, with a number of complying responses received for the PMU role. A bid evaluation report was completed, however, due to delays in satisfying CIG procurement requirements, the Project manager role was contracted but not started during this period.

Insufficient responses were received to the tender for the Finance Specialist, and this was reissued during the reporting period, with a final report awaiting tender committee approval during the reporting period.

## 3. Financial disbursements.

The financial disbursements recorded during the period of this report are as follows:

- Under Loan 3193-COO reference WA001 Enutra was paid \$132,257.80 for completion of Milestone 1: Inception Report.
- Local Budget Contribution
  - Management of the Renewable Project for Land Acquisition - \$13,824.00
  - Atiu Reticulation upgrade for this period - \$2,666.20  
(Tender for procurement to be awarded in the next period)
  - Advertisement of 2 contracts (Project Manager & Finance Specialist) - \$1,903.91
- PECF – Appointment will be reported next period with committed funds.

## 4. Field work.

- (i) Field investigations and work carried out by the REDD office staff during this reporting included:
  - Survey of the Atiu Solar PV site as according to the technical requirements
  - Survey of the Mangaia Power House to be formalised under the ADB process i.e. land agreements
  - Tendering of the Atiu reticulation upgrade project (funded locally)
  - PEC Tender approved and negotiation in progress with supplier
  - Land negotiation with Mitiaro and Mangaia with 1<sup>st</sup> draft of Landowners Agreement presented to the land owners.
- (ii) Current Draft Land Agreements and land surveys for all islands are Annexed to this Report

### Due Diligence.

- (iii) **Atiu Subproject.** Entura prepared an initial draft feasibility for the Atiu subproject. ADB provided feedback on this report. Changes were not completed during the reporting period and are still being addressed by Entura. The Atiu feasibility, resettlement plan and IEE is expected to be completed early October and ADB approval by mid October when a decision on inclusion of Atiu in Phase 1 will be confirmed.

### Safeguards and monitoring

- (iv) **Environment.** Environmental safeguards monitoring has focused during this reporting period on preparing documentation required to comply with the *Cook Islands Environment Act 2003* and *ADB Safeguard Policy Statement 2009 (SPS)*.

Flora and fauna field surveys were completed at Mangaia, Mitiaro, Mauke and Atiu (Phase 1 subprojects) during the previous project progress reporting period. Flora and fauna assessment reports describing the results of the surveys were prepared for all sites during this

project reporting period. The results of the assessments found that the implementation of the Phase 1 subprojects will not have any adverse impacts to significant ecological values including to species listed as Endangered on the Cook Islands Biodiversity Database or species listed on the International Union for the Conservation of Nature (IUCN) Red List.

On REDD and the POE's request, the mayors of each subproject island have provided letters confirming that there are no cultural (marae) or historic values associated with any of the proposed subproject sites.

The Initial Environmental Examination (IEE) report prepared for the Project Preparatory Technical Assistance (PPTA) has been updated in accordance with the requirements of the Project Environmental Assessment and Review Framework and ADB SPS. The IEE was updated to include changes to the scope and design of the subprojects during project implementation. Most notably the IEE now includes the environmental impacts and risks associated with the Atiu subproject which were not considered as part of the PPTA IEE. Once approved by the ADB, the IEE (including the EMP) will be included in the Phase 1 project bidding documents.

In response to the Environmental Service Declarations submitted during the previous project progress reporting period, the NES has formally notified REDD and the POE that each of the subprojects will require the preparation of an Environmental Impact Assessment (EIA) in accordance with the requirements of the *Environment Act 2003*. Terms of Reference for the EIAs have been issued by NES and the EIAs are currently being prepared.

- (vi) **Land Acquisition/Resettlement Plan.** The Project Owner's Engineer updated the draft Resettlement Plan (RP) based on comments from ADB and then updated it again based on comments from the Government of the Cook Islands and on new survey and other information. The final RP was submitted in mid-September to ADB and the government for review and approval.

All four of the solar sites have now been surveyed. The exact areas of those sites are listed below in revised Table 1 (row five). The existing substation site and three of the four existing transformer sites on Mauke have been surveyed, but one remains to be surveyed. Survey of the site of the existing power station on Mangaia was completed in September. Government is seeking long-term land agreements for those sites.

Revised draft voluntary land use agreements were prepared for Mitiaro based on previous consultations with landowners on Mitiaro and Mangaia. Those revised drafts are attached to the updated RP. The drafts will now be used as the basis for drafting voluntary land use agreements on Atiu and Mauke.

Table 1, below, presents a summary of current subproject features and land acquisition requirements under the project.

**Table 1: Summary of Phase 1 Subproject Features and Land Requirements**

Feature	Atiu	Mitiaro	Mauke	Mangaia	Total
Population <sup>1</sup>	480	189	307	572	1,548
Households <sup>2</sup>	161	76	106	195	538
Ownership of Land to Be Acquired	Privately owned native freehold	Privately owned native customary	Privately owned native freehold	Privately owned native customary	

<sup>1</sup> 2011 census.

<sup>2</sup> Active residential electricity accounts.

Feature	Atiu	Mitiaro	Mauke	Mangaia	Total
	land.	land.	land.	land.	
Location of Site for Solar Installation	Vaitamina 556, former agricultural land approximately 140 m south of existing power station in Teenui village.	Teramake Section 8 and Te Puna O Tueru Section 9, <i>makatea</i> 230 m inland from existing power station behind Mangarei village.	Tengaru 6B, agricultural land in Areora village adjacent to Public Works shed and Agriculture Research buildings.	Aratane Section 35 Puna Keia, agricultural land and <i>makatea</i> 150 m SSE of existing power plant on E side of Aremauku Road.	
Area to Be Acquired for Solar Site m <sup>2</sup> (ha)	14,971 (1.4971)	4,837 (0.4837)	8,400 (0.84)	12,162 (1.2162)	40,370 (4.0370)
Area to Be Acquired for Substation and Transformers m <sup>2</sup> (ha)	None expected	None expected	100 est. (0.01)	None expected	100 est. (0.01)
Location of Existing Power Station				Aratane "Vaipuna" Puna Tavaenga	
Area to Be Acquired for Existing Power Station m <sup>2</sup> (ha)				2,800 est. (0.28)	2,800 est. (0.28)
Total Area to Be Acquired m <sup>2</sup> (ha)	14,971 (1.4971)	4,837 (0.4837)	8,500 est. (0.85)	14,962 est. (1.4962)	43,270 est. (4.3270)

## 5. ADB Turnkey Tender Packaging.

Entura has prepared a draft of the main technical requirements for a Turnkey ICB tender for Phase 1 projects. However, at this stage, this has not been progressed into a final document for ADB review, pending confirmation of the procurement method.

Discussions of the PSG during the reporting period, in relation to the bidding documents, centered on opportunities for enabling local content through the bidding structure and use of ADB domestic preference. CIG has expressed a clear preference and policy for enabling local business to compete for the work packages. Also discussed was the procurement method, which was confirmed by the CIG as one stage, two envelopes, to best align with CIG procurement policy.

After the reporting period, the ADB advised that the Cook Islands is not eligible for domestic preference under ADB procurement. The PSG has requested additional information on the potential choice and final recommendation and further negotiations with ADB is required in order to maximise local contracting. The preferred procurement strategy is being developed by Entura.

The next reporting period will see the procurement documents finalized and Phase 1 tendered.

Contact details of personnel willing to participate in the construction and implementation of the Phase 1 turnkey projects have been provided by the Mayors and Island Secretaries of Atiu, Mitiaro, Mangaia and Mauke and these will be included in the Phase 1 tender package.

## Progress against Results Measurement Table

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Finalisation of a Results Measurement Table is identified as an action for further discussion at PSG meetings. See draft framework in Appendix 2.

## Changes to Activity Context in the Reporting Period

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There were no additional key changes in activity context during this reporting period.

The POE received confirmed variations to its Terms of Reference in particular noting the work that POE has assisted with the PEC Tender.

## Relationship between Implementing Agencies, Beneficiaries and Other Stakeholders

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### **Pacific Environmental Community (PEC) Procurement**

The OPM secured funding from the Pacific Environment Community (PEC) for the supply and packaged delivery of Japanese-made solar PV modules, by Japanese suppliers. These will subsequently be installed on the islands: Mangaia, Mauke, Mitiaro, Atiu, Aitutaki and Rarotonga.

The closed RFT was issued on the 11 August 2015 and closed on 22<sup>nd</sup> September 2015. The intent of the procurement strategy was to achieve economies of scale by the volume purchase of Japanese solar PV modules to supply the southern group islands. The Tenderer needed to provide the maximum number of solar panels using the total funds available (USD3,350,00.00 Exclusive of Value Added Tax), and achieve the expected results for the southern group islands with the remainder to be used in Aitutaki and Rarotonga. All *Tenderers* were to satisfy themselves as to the requirements of all matters relating to Japanese supply, equipment specifications, and transport to Rarotonga, including but not limited to module compliance with all specifications listed, Cost and Freight (C&F) to dockside wharf facilities in Avarua, Rarotonga, (Marine Insurance for the shipment will be the responsibility of the Cook Islands Government) and conformance with PEC fund guidelines. Interest was received from seven tenderers with one withdrawal. Three Tenders were received and official opening of tenders was held on the 24<sup>th</sup> September 2015 and the Evaluation Tender team met on 29<sup>th</sup> September 2015. The Evaluation Report was completed on the 30<sup>th</sup> September and was awaiting approval of the Government Tender Committee in the reporting period.

Government will cover the insurance from source right through to delivery, construction and commissioning to the Southern Group islands. This provides a single insurer verses the risk of two insurers (supplier and government) and liability issues. Quality checks with the supplier will be conducted before the shipment is signed off. A supplier retention payment remains and is still considered appropriate. Storage facilities for the 20 foot containers have yet to be identified by CIIC. An allocation of USD250,000 has been set aside to pay insurance and local costs including: transport and wharfage charges as well as storage.

### **Cofinancing from GEF**

Global Environment Facility (GEF) funds of approximately US\$4.2M have been made available to support grid stability and upscaling on Rarotonga and Aitutaki. Project options for this grant have been identified in consultation with stakeholders during this reporting period and are presented in the Entura Inception report. The preferred option for funding is energy storage, in the form of batteries on

Rarotonga. However, there are a range of options available and detailed evaluation is to be undertaken. The ADB has responded with a list of initial questions to guide this process.

A memorandum for the Project Preparatory Grant (PPG) from GEF is being prepared by Crown Law and ADB in order to conduct the necessary due diligence. A fact-finding mission is expected in January and the earliest PPG will be Q2 2016. It is likely that GEF6 funding will be in-country in the 16/17 FY.

## Updates to Key TTV Activity Management Documents

The Activity Results Framework is replaced with the Indicative Implementation Plan for this section.

The updated Indicative Implementation Plan for the next 18 months is provided in the Table below. **The Table** includes key deliverables due during the next reporting period (highlighted) with the activities above having been completed during this reporting period.

**Table 3: Indicative Project Implementation Action Plan for the Next 18 Months**

Activity	Responsibility	Target Date/Completed
Completed		
Submission of inception report	Entura	Jun 2015/Aug 2015
1 <sup>st</sup> quarterly progress report	Entura/MFEM	Jun 2015/Jul 2015
Advertisement of solar PV modules (PEC Fund)	PMU/Entura/PEC	Jun 2015/Aug 2015
Submission of due diligence report for Atiu	Entura/MFEM	Jul/Aug 2015/Aug 2015
Engagement of the PEC fund coordinator	MFEM	May-Jun 2015/Aug 2015
Q4, 2015 (next reporting period)		
Engagement of the two PMU staff	MFEM	Sep 2015
Developing energy efficiency policy implementation plan; tariff/subsidy recommendations; electricity load demand study	Entura	Oct 2015
Submission of draft bidding document (BD) for turnkey package (Phase 1 + Atiu) for ADB's review	PMU/Entura	Oct 2015
Firming-up GEF scope	MFEM/ADB	Oct 2015
Submission of bid evaluation report (BER): solar PV modules	Entura/PEC	Sep 2015
Contract award of solar PV modules (PEC Fund)	PMU/Entura	Oct 2015
Approval of Atiu to be included in Phase 1	ADB	Oct 2015
Procurement Options including risk mitigation options	Entura/CIG/ADB	Oct 2015
Island Project Site Preparation Plans	Entura/Island Council/PMU	Oct 2015
Advertisement of: Package I (turnkey Phase 1)	ADB/PMU	Nov 2015
2 <sup>nd</sup> quarterly progress report	Entura/MFEM	Oct 2015
IEE and EIA	Entura/NES	Oct 2015
Landowner Agreements confirmed	REDD/CIIC/Entura	Nov 2015
Procurement Plan Distribution Upgrade	Entura	Oct 2015
Due diligence for GEF scope	Entura	Nov - March 2015

Activity	Responsibility	Target Date/Completed
Review/fact-finding mission for GEF	ADB	Nov 2015
Subsequent activities		
Submission of BER: Package I	PMU/Entura	Feb 2016
GEF Mission	PMU/Entura/TAU	Feb 2016
Approval of BER: Package I	MFEM/ADB	Mar 2016
Contract Award: Package I	PMU/Entura	Apr 2016
Contracts for distribution upgrade for each island	Entura	TBD
Feasibility study for Phase 2*	PMU/Entura	TBD
Submission of draft BD for turnkey package (Phase 2)	PMU/Entura	TBD
Advertisement of bid: Package 2	ADB/PMU	TBD

Subject to change depend on the progress of the site identification and preparation for Rarotonga

## Costed workplan

There is currently no detailed costed workplan. This will be completed this quarter under the guidance of the Finance Specialist and the PMU.

However, Procurement packaging has been prepared and is currently under review by Entura, REDD and ADB.

The following expenditures are planned in the subsequent period.

- POE invoice milestone 2 (15%): NZD198,000
  - *Milestone 2 deliverables: Developing energy efficiency policy implementation plan; Tariff and subsidy recommendations; electricity load demand up to 2020.*
- POE invoice milestone 3 (25%): NZD330,640
  - *Milestone 3 deliverables: Schedule task 5 – review point with PMU, Feasibility Study complete (including IEE, EIA, EMP, RP).*
- PMU staffing commencement: NZD50,000
- PEC Coordinator: NZD45,000
- Land: NZD79,7805
- PEC modules: USD3,350,000
- PEC insurance and storage: USD150,000

## Risk management

Key risks identified for the project, including current actions, are identified in Appendix C.

PSG has identified further risks in 2016 as Rarotonga will have significant construction projects in the pipeline. This includes: Powerhouse, Water stage 2, Apii/Nikao school, Tereora college (September) and Southern Group Renewables. This raises issues of absorptive capacity of Cook Islands in terms of labour, in-country material flows and shipping. PSG noted the need to be conscious of this and continue to manage in 2016. Procurement planning documentation and a list of labour available on each island will be provided as part of turnkey contract documents which mitigate some of the risk.

## Governance and management arrangements

The first meeting of the Project Steering Group (PSG) was held on the 18<sup>th</sup> June 2015 and it was agreed that meetings would be held weekly on a Wednesday from 3-4.30pm. Terms of Reference include: taking

responsibility for the overall direction and governance of the project within the constraints set out by the TOR, be accountable for the success or failure of the project, authorise all major plans and resources and any deviations that will exceed or deviate from agreed plans, provide unified direction, leadership and support to the PMU and manage and align the PSG's interface with the parties respective stakeholders through clear communication. The members of the PSG were confirmed as Chair, Elizabeth Wright-Koteka (OPM) Tangi Tereapii (REDD), Joseph Mayhew (NZHC), Richard Neves (MFEM), Apii Timoti (TAU), Andreas Demmke (DCD) and Tamarii Tutangata (CIIC) were also included as a member of the PSG in August. The ADB Liaison Officer provided secretariat services for the four PSG meetings held during this reporting period.

## Authorisation

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I declare that the information contained in this report is true and correct and confirm:

- Funds were received and used only for the agreed purpose(s); and
- All conditions attached to Funding have been met; and
- Funds have been fully utilised for the intended purpose

ELIZABETH WRIGHT-KOTEKA

CHIEF OF STAFF/ENERGY  
COMMISSIONER

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*Full Name (in block capitals)*

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*Title / Position*



15 OCTOBER 2015

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*Signature*

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*Date*



## Appendices

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This report includes the following appendices:

- Appendix A: Progress Against Agreed Workplan and Budget (table)
- Appendix B: Progress against Results Framework (table)
- Appendix C: Risk matrix (table)
- Appendix D: Project specific covenants - as displayed in legal agreements (table)

## Appendix A: Progress Against the Agreed Workplan and Budget

Output	Planned Expenditure	Actual Expenditure	Variance	Reason for Variance
<b>Output 0. Non-output specific costs / Management costs</b>	132,000	132,000	0	
<b>Output 1. Three core subprojects on Mangaia, Mauke, and Mitiaro islands</b>				
1.1 Bidding for single turnkey contract completed (Q3 2015)				
1.2 Turnkey contractor award (by Q2 2015)				
1.3 Commencement of construction (by Q3 2015)				
1.4 Systems commissioning including test run. (by Q2 2016)				
1.5 O&M training by turnkey contractor complete (by Q 2 2017)				
<b>Output 2. Three non-core subprojects on Atui, Aitutaki, and Rarotonga</b>				
2.1 Feasibility studies completed. (by Q 1 2015)				
2.2 Bidding for two turnkey contracts completed (by Q1 2016)				
2.3 Turnkey contractor award (by Q 4 2015)				
2.4 Start of Construction (by Q2 2016)				
2.5 Systems commissioning including test run. (by Q4 2016)				
2.6 O&M training by turnkey contractor complete (by Q 2 2017)				
<b>Output 3 Institutional strengthening and project management support</b>				
3.1 Selection of consultant and contract award (by Q3 2014)				
3.2 Complete capacity development for project management (by Q2 2017)				
3.3 Updating CIRECIP complete (Q4 2016)				
3.4 Implementation of the environment and social safeguard actions (2014-2017)				
<b>TOTALS</b>				

## Appendix B: Progress Against Results Framework

This table shows progress of the Activity against the intended outcomes and outputs defined in the Results Framework and the Project Administration Manual (PAM). Note that this framework still requires finalisation with the Steering Group Committee.

Note: Planned and actual indicators and targets should be sex-disaggregated where possible.

<i>From agreed Results Measurement Table in the Activity Design Document</i>				<i>Data up to and including this reporting period</i>	
<b>Outcomes and outputs</b>	<b>Planned indicators</b>	<b>Planned targets</b>	<b>Planned methodology and data sources</b>	<b>Actual measurement against targets (using indicators)</b>	<b>Actual methodology and data sources</b>
<b>Impact</b> <b>Increased energy security in an environmentally sustainable manner</b>	100% of islands convert energy system from diesel fuel to renewable energy source. (baseline: 0% in 2012)	<b>By 2020</b>	Government Statistics	6 of 15 islands commissioned with renewable energy generation systems	Project completion reports held by REDD
<b>Medium-term outcome</b> <b>Increased access to a higher share of electricity generated by renewable energy sources</b>	Four islands in the Southern group fully convert energy system from diesel fuel to renewable energy. (base line:0% in 2012)	<b>By end of 2018</b>	Government statistics Project Completion Report		
<b>Short-term outcome</b>					
<b>Output 1. Solar photovoltaic power system for three core subprojects developed on Mangaia, Mauke, and Mitiaro islands.</b>	Solar photovoltaic power system of core subprojects (with 780 kW installed capacity) connected to the existing power grid on Mangaia, Mauke, and Mintaro islands. (baseline: 0% in 2012)	<b>By the end of 2016</b>	Project Progress Reports Project Completion Report		
<b>Output 2. Solar photovoltaic power system for three non-core subprojects developed on</b>	Solar photovoltaic power system of non-core subprojects (2400kW) connected to the existing power grid on Aitu, Aitutaki, and Rarotonga islands. (baseline 0% in	<b>By end-2017</b>	Project Progress Reports Project Completion Report		

<b>Aitu, Aitutaki, and Rarotonga.</b>	2012)				
<b>Output 3. Institutional and project management capacity strengthened.</b>	<p>Energy efficiency policy implementation plan is developed (2012 baseline 0%)</p> <p>Capacity of OEC and REDD (10 staff in total) for renewable energy technology assessments and tariff setting in private sector-funded developed (2012 baseline: 0%)</p> <p>The updated CIRECIP which incorporates load demand update, viable renewable technology choice, and least-cost investment plan, developed. (2012 baseline: 0% )</p> <p>Project management support for REDD and TAU to implement core and non-core subprojects (6 in total) completed (2012 baseline: 0%</p>	<b>By end-2017</b>	<p>Project Progress Reports</p> <p>Project Completion Report</p>		

## Appendix C: Project Risk Table

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
1	Project management	Human resources management	PMU Recruitment not commenced on time and delays implementation or reduces effectiveness	C. Possible	3. Moderate	M	Early completion of recruitment process by Tender Evaluation Committee and contract negotiation by OPM REDD and POE agrees to provide further support as necessary.	C. Possible	2. Minor	L	✓	↓	13 /10/15
2	Project management	Contract procurement management	Approval of PEC tender documents is delayed or insufficient capacity to finalise contracts.	C. Possible	2. Minor	L	Crown Law and Tender Committee gives priority to confirming PEC documents and evaluation. POE provides necessary capacity during contract negotiation	C. Possible	2. Minor	L	🔄	→	13 /10/15
3	Project management	Contract procurement management	Solar Modules insurance and storage delayed and delivery delayed.	C. Possible	3. Moderate	M	Contract negotiations include Government insurers and CIIC confirms storage prior to modules being shipped.	C. Possible	3. Moderate	M	🔄	↓	13 /10/15
4	Project management	Time management	Land payment confirmation report cannot be completed due to delays in land acquisition payments. Impact on preparation of site and civil works and turnkey contract timing (and liquidated damages)	C. Possible	4. Major	H	Emphasis on completing negotiations and discovery process asap. Travel to islands as required to facilitate.	C. Possible	3. Moderate	M	🔄	→	13 /10/15
5	Project management	Time management	Atiu sub-project due diligence not approved in time for bidding documents	C. Possible	3. Moderate	M	Atiu feasibility progressing satisfactorily, hence risk reducing. Enable Atiu to be removed from bidding documents if necessary (tender separately) Accommodate small delays in issue of bidding documents (<1 month); taking into account safeguards may form critical path for construction.	D. Unlikely	2. Minor	L	✓	↓	13 /10/15
6	Engineering	Social and cultural	Island Project Site Preparation is delayed due to capacity on island	C. Possible	3. Moderate	M	PMU to oversee site preparation and engineering implementation plans. Include procurement of local civil engineer Island councils are consulted and understand requirements	C. Possible	2. Minor	L	🔄	→	13 /10/15

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
7	Project management	Contract procurement management	Selection of ADB Works Procurement Packages for turnkey work - use of two envelope approach increases evaluation time and reduces technical flexibility to evaluate performance or compatibility preferences	C. Possible	3. Moderate	M	Risk acknowledged and incorporated into bidding documents and schedule to the extent possible	C. Possible	2. Minor	L	🔄	➔	13 /10/15
8	Project management	Risk management	If selecting turnkey packages for individual islands: High premium paid for relatively low value individual ICT works contracts	C. Possible	4. Major	H	Steering Committee gives priority to managing the smaller ICT packages with POE and PMU/REDD Possible likelihood of fewer funds for Phase 2.	C. Possible	3. Moderate	M	🔄	➔	13 /10/15
9	Project management	Risk management	Key equipment is incompatible if a turnkey tend is offered for each island	C. Possible	4. Major	H	Procurement of critical set of components such as batteries, battery inverters and controllers as a single lot, which would require them to be compatible.	C. Possible	3. Moderate	M	🔄	➔	13 /10/15
10	Science	Political	Local contractors do not have sufficient opportunity to participate in works	C. Possible	3. Moderate	M	REDD undertake early discussions with private sector informing them of the proposed works contracts Chamber of Commerce is involved in supporting local contractors through the business mentor programme CITTI commences training programme prior to procurement packages being advertised. Skills set of local staff on each island to be provided to international bidders	C. Possible	3. Moderate	M	🔄	⬇️	13 /10/15
11	Project management	Contract procurement management	Scoping work for distribution rehabilitation not included in ICT process due to schedule constraints	C. Possible	2. Minor	L	Prepare alternative procurement structure for distribution works.	C. Possible	2. Minor	L	🔄	⬇️	13 /10/15

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
12	Project management	Contract/procurement management	Equipment performance testing is not possible as required if separate works and goods contracts are let	B. Likely	4. Major	E	Preference for Turnkey contract. If not turnkey, detailed contractual backing and conventional system specification is required. Detailed quality and workmanship auditing for Works also required ensuring best practice is followed. Include time-based warranties where possible.	C. Possible	4. Major	H	🌀	➔	13 /10/15
13	Project management	Contract/procurement management	System performance and equipment integration is unlikely to be able to have a full market test of the least cost system configuration if separate goods and works contracts are let.	B. Likely	4. Major	E	Preference for Turnkey contract. POE will base equipment specifications on the latest understanding of the market and market test will occur within each equipment specification	C. Possible	3. Moderate	M	🌀	➔	13 /10/15
14	Project management	Contract/procurement management	Compatibility of equipment may not be achievable if separate goods and works contracts are let	B. Likely	4. Major	E	Preference for Turnkey contract. POE will make every effort to provide full and complete specification. Consider plant contract to integrate diesel in powerhouse.	C. Possible	4. Major	H	🌀	➔	13 /10/15
15	Engineering	Electrical - Primary	Connection of solar PV hybrid systems to remote grids has unforeseen technical difficulties	C. Possible	4. Major	H	Ensure grid assessment reviews the issues and risks and ensure contractual clauses in place for these eventualities in Turnkey contract.	C. Possible	3. Moderate	M	🌀	➔	13 /10/15
16	Engineering	Renewable energy	Turnkey contractors designs, construction and commissioning have unforeseen difficulties on site	C. Possible	4. Major	H	Ensure sites assessment reviews the issues and risks and ensure contractual clauses in place for these eventualities in contract for Turnkey suppliers	C. Possible	3. Moderate	M	✖	➔	13 /10/15
17	Project management	Scope management	Environmental & Social Safeguards scope or site visits highlights significant issues arising or mitigation required.	C. Possible	3. Moderate	M	Ensure sites assessment reviews the issues and risks early, and mitigations are put in place through EMP.	C. Possible	3. Moderate	M	✓	➔	13 /10/15
18	Technical	Environment	Environmental issues are not identified resulting in environmental impacts	D. Unlikely	4. Major	M	Use local expert support through the POE; follow NES and ADB requirements	D. Unlikely	4. Major	M	✓	➔	13 /10/15

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
19	Project management	Contract procurement management	REDD and TAU has sufficient capacity to implement and maintain the project.	C. Possible	3. Moderate	M	The government adopts policy actions recommended under the institutional strengthening and project management that will support the performance and service delivery of TAU and REDD.	D. Unlikely	3. Moderate	L	☺	↓	13 /10/15
20	Project management	Human resources management	To deliver project may require assistance from others outside of the project team that is not currently costed.	C. Possible	3. Moderate	M	PMU recruitment underway. Consideration and requests in-place for capacity support between government departments	D. Unlikely	2. Minor	L	☺	→	13 /10/15

**KEY**

**Risk status (column L)**

Symbol	Definition
✓	Satisfactory - everything necessary and possible is being done
☺	Some concerns - actions are in place but are not fully implemented or effective - close monitoring required
✗	Unsatisfactory - current actions are not sufficient, or actions still to be commenced - immediate attention required

**KEY**

**Risk trend (column M)**

Symbol	Definition
↓	Risk is likely to reduce
→	Risk is likely to remain the same
↑	Risk is likely to become moderately worse
↑	Risk is likely to become significantly worse



## Appendix D: Project specific covenants - as displayed in legal agreements

Product	Schedule	Para No.	Description	Remarks/Issues	Type
Loan 3193	Article IV	1	(a) The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound applicable technical, financial, business, and development practices.	Being complied with.	Others
Loan 3193	Article IV	2	The Borrower shall make available, or cause to be made available, promptly as needed, and on terms and conditions acceptable to ADB, the funds, facilities, services, land and other resources, as required, in addition to the proceeds of the Loan, for the carrying out of the Project.	Being complied with.	Others
Loan 3193	5	2	The Borrower shall ensure, and shall cause the Implementing Agencies and other involved agencies to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project, and that all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment; (b) the Environmental Safeguards as set out in the SPS; and (c) all measures and requirements set forth in the IEE, the EMP, the EARF, and any corrective or preventative actions (i) set forth in a Safeguards Monitoring Report, or (ii) as subsequently agreed among ADB, the Borrower, and the Implementing Agencies.	Being complied with.	Safeguards
Loan 3193	Article IV	3	The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.	Being complied with.	Others
Loan 3193	5	3	The Borrower shall ensure and cause the Implementing Agencies to ensure that all land and all rights-of-way required for the Project are made available to the Works contractors in a manner and within timeframes compliant with the RP, the RF and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of	Being complied with.	Safeguards

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the RP and the RF, and any corrective or preventative actions (i) set forth in the Safeguards Monitoring Report, or (ii) as subsequently agreed among ADB, the Borrower, and the Implementing Agencies.		
Loan 3193	5	4	Without limiting the application of the Involuntary Resettlement Safeguards or the RP, the Borrower shall ensure, or cause the Implementing Agencies to ensure, that no physical or economic displacement takes place until: (a) compensation and other entitlements have been provided to the displaced persons under Involuntary Resettlement Safeguards as described in and in accordance with the RP and the RF, and (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP and the RF.	Being complied with.	Safeguards
Loan 3193	Article IV	4	The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.	Being complied with.	Others
Loan 3193	Article IV	5	(b) ADB shall disclose the annual audited financial statements for Parts B and C the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.	waiver on requirement being sought due to no financial disbursements in financial year ending 30 June 2015.	Financials
Loan 3193	5	5	The Borrower shall ensure and cause the Implementing Agencies to ensure that the provisions of the IEE, EMP and RP as well as any requirements under the SPS also apply to the portion of the Project to be financed by the Borrower.	Being complied with.	Safeguards
Loan 3193	Article IV	5	(c) The Borrower shall enable ADB, upon ADB's request, to discuss the financial statements for Parts B and C of the Project and the Borrower's financial affairs where they relate to Parts B and C of the Project with the auditors appointed pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in		Financials

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the Borrower, unless the Borrower shall otherwise agree.		
Loan 3193	Article IV	5	(a) The Borrower shall (i) maintain accounts and records for Parts B and C of the Project (separate from those for Part A, which will be maintained by TAU); (ii) prepare annual financial statements for Parts B and C of the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements and use of the Loan proceeds) and a management letter (which sets out the deficiencies in the internal control of Parts B and C of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.		Financials
Loan 3193	4	6	The Borrower shall ensure that the Implementing Agencies shall not award any Works contracts until all land and related rights for the construction of the Project facilities, to be handed over to the contractor before construction commences, have been acquired or rights to access and use the land for the purposes of constructing and operating the Project facilities on an ongoing basis have been secured by the Borrower.  (d) reinstate pathways and other local infrastructure to at least their pre-project condition as soon as possible and no later than the completion of construction.	Being complied with.	Safeguards
Loan 3193	Article IV	7	(a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and	Subsidiary Loan Agreement not yet finalized/effective.	Others

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			ADB and to accomplish the purposes of the Loan. (b) No rights or obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of ADB.		
Loan 3193	4	8	(a) The Borrower shall cause the Implementing Agencies to ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party. (b) The Borrower shall cause the Implementing Agencies to ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.	Being complied with.	Others
Loan 3193	5	8	The Borrower shall do, or cause the Implementing Agencies to do, the following:  (a) submit Safeguards Monitoring Reports to ADB: (i) in respect of implementation of and compliance with Environmental Safeguards and the EMP, annually during construction and the implementation of the Project and the EMP until the issuance of ADB's project completion report unless a longer period is agreed in the EMP; and (ii) in respect of implementation of and compliance with Involuntary Resettlement Safeguards and of the RP, semiannually during the implementation of the Project, and the RP until the issuance of ADB's project completion report unless a longer period is agreed in the RP; and disclose relevant information from such reports to respective affected people under Environmental Safeguards, Involuntary Resettlement Safeguards, and Indigenous Peoples Safeguards promptly upon submission;  (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation, or operation of the Project that were not considered in the IEE, the EMP and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the	Being complied with.	Safeguards

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			event and proposed corrective action plan; and  (c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach.		
Loan 3193	4	9	The Borrower shall cause the Implementing Agencies to ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the Consulting Services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.	Being complied with.	Others
Loan 3193	5	10	The Borrower shall cause the Implementing Agencies to ensure that Works contracts include provisions to require the contractors (a) not to discriminate against people seeking work on the basis of age, provided they are capable of doing such work; (b) to provide equal pay for equal work, regardless of gender or ethnicity; (c) to comply with core labor standards and the applicable labor laws and regulations, including stipulations related to employment, such as health, safety, welfare, the workers' rights and anti-trafficking laws; (d) not to force the labor to work against their will; and (e) not to employ child labor.	Being complied with.	Social
Loan 3193	5	11	The Borrower shall cause the Implementing Agencies to ensure that the Works contractors (a) implement HIV/AIDS and STIs awareness and prevention training for all employees; (b) provide necessary measures to ensure the safety and health of their employees; and (c) together with the local centers of disease control, disseminate information on the risks, hazards, impacts and prevention know-how on HIV/AIDS and STIs among the staff, workers on the construction sites and the local community by means of information disclosure, education and consultation.	Being complied with.	Social
Loan 3193	5	12	The Borrower shall ensure to provide Counterpart Funds in a timely manner, including any additional Counterpart Funds required for any shortfall of funds or cost overruns. The Borrower shall also ensure to ensure	Being complied with.	Financials

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			that O&M of all Project facilities is fully funded without any delay.		
Loan 3193	5	13	The Borrower shall, and shall cause the Implementing Agencies to, establish and maintain sound financial management systems in accordance with ADB's Financial Management and Analysis of Projects (July 2005), including the establishment of separate Project accounts.	Being complied with.	Financials
Loan 3193	5	14	The Borrower shall, and shall cause the Implementing Agencies to, (a) comply with ADB's Anticorruption Policy (1998, as amended to date); (b) acknowledge ADB's right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project; and (c) agree to cooperate, and shall cause the Implementing Agencies and all other government offices, organizations and entities involved in implementing the Project to cooperate, fully with any such investigation, and to extend all necessary assistance, including providing access to all relevant books and records, as may be necessary for the satisfactory completion of any such investigation. In particular, the Borrower shall ensure, or cause to be ensured, that (i) periodic inspections of the Project contractors' activities related to fund withdrawals and settlements are carried out; (ii) relevant provisions of ADB's Anticorruption Policy (1998, as amended to date) are included in all bidding documents for the Project; and (iii) contracts, financed under the Project, include provisions specifying the right of ADB to audit and examine the records and accounts of the Implementing Agencies, contractors, suppliers, consultants, and other service providers as they relate to the Project.	Being complied with.	Others
Loan 3193	5	15	In the event of (a) any change in ownership of the Project facilities, or (b) any sale, transfer or assignment of shares or interest or other change of control in the Implementing Agencies is anticipated, the Borrower shall consult with ADB at least 6 months prior to the implementation of such change. The Borrower shall ensure that such change be carried out in a lawful and transparent matter. The Borrower shall further ensure that the new controlling management of Implementing Agencies complies with (a) all Project-related agreements executed between ADB or the Borrower and the	Being complied with.	Others

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			Implementing Agencies; and (b) the policies of ADB relevant to the Project.		
Loan 3193	5	16	Within 90 days following effectiveness of the Loan Agreement and Grant Agreement, the Borrower shall establish and maintain a Project website which will be regularly updated to include information on the following general matters: (a) bidding procedures, bidders and contract awards for Works, Goods, and Consulting Services; (b) physical progress of the Works and procurement of Goods; and (c) audited Project financial accounts, Project review reports (e.g. mid-term review), and quarterly progress reports, consolidated annual reports and post-completion report, in each case promptly after submission to ADB (unless, in the case of Project review reports and quarterly progress reports, ADB considers these to be exempt from disclosure under ADB's Public Communications Policy (2011)).	Project website established Government procurement website utilised (www.procurement.gov.ck)	Others
Loan 3193	5	17	The Borrower shall cause the Implementing Agencies to ensure that (a) the Project facilities are installed in accordance with design specifications and construction norms; and (b) construction supervision, quality control and contract management are performed in accordance with best international industry practices. The Borrower shall cause the Implementing Agencies to install, equip, operate, maintain and manage the project facilities in compliance with applicable standards and best international practices. The Borrower shall cause the Implementing Agencies to operate and maintain, and continue to operate and maintain, the Project facilities in accordance with an O&M framework that is satisfactory to ADB.		Sector
Loan 3193	5	18	The Borrower shall cause the Implementing Agencies to do the following: (a) acquire all rights necessary to use the parcels of land constituting the Project site at least 30 days prior to the award of the turnkey contract; and (b) install or otherwise secure road access sufficient for the purposes of the Project at least 30 days prior to the award of the turnkey contract.	Being complied with.	Sector
Loan 3193	5	19	The Borrower shall ensure ongoing operational financial sustainability of the Project, either through adjustment of electricity tariffs, or budgetary allocations.	Being complied with.	Sector

<b>Product</b>	<b>Schedule</b>	<b>Para No.</b>	<b>Description</b>	<b>Remarks/Issues</b>	<b>Type</b>
Loan 3193	5	20	The Borrower shall cause the Implementing Agencies to ensure that adequate staffing will be planned and allocated for the implementation and O&M of the Project facilities, and that relevant staff members will attend training provided under the Project in relation to O&M.	Being complied with.	Sector