

Project Number: 49450-012 January 2019

Proposed Grant and Administration of Grants for Kingdom of Tonga: Tonga Renewable Energy Project

Prepared by Tonga Power Limited and the Ministry for Meteorology, Energy, Information, Disaster Management, Environment, and Climate Change for the Ministry of Finance and National Planning and the Asian Development Bank

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CURRENCY EQUIVALENTS

(as of 7 November 2018)

Currency units – Australian dollar/s (A\$)/pa'anga (T\$)

A\$1.00	=	\$0.72
\$1.00	=	A\$1.38
T\$1.00	=	\$0.44
\$1.00	=	T\$2.27

NOTES

- (i) The fiscal year (FY) of the Government of Tonga ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2011 ends on 31 December 2011.
- (ii) In this report, "\$" refers to US dollars

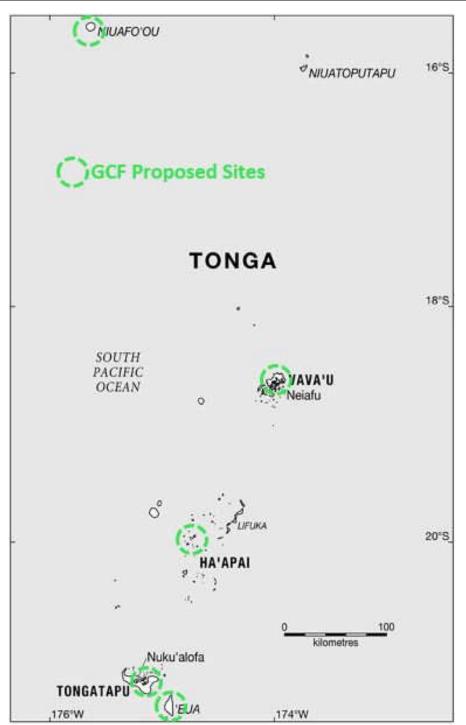
ABBREVIATIONS

Asian Development Bank
Displaced Person
Executing Agency
Environment and Social Unit
Gender Action Plan
Grievance Focal Point
Grievance Redress Committee
Hectares
Households
Land Acquisition and Resettlement
Ministry for Meteorology, Energy Information, Disaster Management, Environment, Climate Change and Communications
Ministry of Agriculture and Fisheries
Ministry of Finance and Planning
Ministry of Lands, Survey, Natural Resources
Ministry of Infrastructure
Non-Government Organizations
Project Management Unit
Project Steering Committee
Resettlement Plan
Safeguard Policy Statement
Tonga Power Limited

GLOSSARY OF TERMS

Affected Persons	A term used to describe all people that are affected by the project impacts. In the context of an RP, it refers to those that are economically or physically displaced by the project. It is increasingly being replaced by the term "Displaced Person" following ADB Safeguard Policy 2009 – but is still in common use in the field. The terms of affected persons (APs) and displaced persons (DPs) are used interchangeably in this document	
Compensation	Means payment in cash or kind for an asset to be acquired or affected by a project at replacement cost at current market value.	
Cut-off-date	Means the date after which people will NOT be considered eligible for compensation i.e. they are not included in the list of APs as defined by the census. Normally, the cut-off date is the date of the detailed measurement survey.	
Displaced Persons	Sometimes referred to as Affected Persons (APs). In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods). This is a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.	
Economic Displacement	Loss of land, assets, access to assets, income sources, or means of livelihoods as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.	
Encroachers	Mean those people who move into the project area after the cut-off date and are therefore not eligible for compensation or other rehabilitation measures provided by the project.	
Entitlement	means the range of measures comprising cash or in-kind compensation, relocation cost, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to /business restoration due to DPs, depending on the type and degree nature of their losses, to restore their social and economic base.	
Inventory of losses	It means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets. Also referred to as the detailed measurement survey (DMS).	
Land acquisition	It means the process whereby a person is compelled by a public agency to alienate all or part of the land s/he owns or possesses, to the ownership and possession of that agency, for public purposes, in return for fair compensation.	
Meaningful Consultation	A process that: (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.	
Non-leased (non-titled)	It means those who have no recognizable rights or claims to the land that they are occupying and includes people using private or state land without permission, permit or grant i.e. those people without legal lease to land and/or structures occupied or used by them. ADB's policy explicitly states that such people cannot be denied compensation.	
Poor	The poverty line established is T\$1638 per capita per year. It is estimated that 27% of Tongan households received incomes below that line, meaning that they experienced periodic difficulties in meeting their daily costs of living for food and other essential expenditures.	
Physical Displacement	Relocation, loss of residential land, or loss of shelter as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.	
Replacement cost	Means the method of valuing assets to replace the loss at current market value, or its nearest equivalent, and is the amount of cash or kind needed to replace an asset in its condition, without deduction of transaction costs or for any material salvaged.	
Significant impact	It means 200 people or more will experience major impacts, which are defined as; (i) being physically displaced from housing, or (ii) losing ten per cent or more of their productive assets (income generating).	
Vulnerable	It means any people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and includes; (i) female-headed households with dependents; (ii) disabled household heads; (iii) poor households (within the meaning given previously); (iv) landless; (v) elderly households with no means of support; (vi) households without security of tenure; (vii) ethnic minorities; and (viii) marginal farmers (with landholdings of five acres or less).	

Figure 1: Map of Project Area



I. EXECUTIVE SUMMARY

This Draft Resettlement Plan (RP) has been prepared by Tonga Power Limited (TPL) and the Ministry for Meteorology, Energy Information, Disaster Management, Environment, and Climate Change (MEIDECC) during the preparation of the Tonga Renewable Energy Project (TREP) in March to May 2017 and updated after a further fact-finding mission in August 2018. This Project is assessed as Category B due to the need to lease private-owned lands and potential impacts to non-land assets including crops and trees.

The project is funded by the Asian Development Bank (ADB) and the Green Climate Fund and includes the required information as specified in the ADB Safeguard Policy Statement, 2009. This Draft Resettlement Plan (RP) is based on site visits, interviews, focus group discussions, and community consultations carried out between March and April 2017 as well as August 2018. With Project funding approval not expected until October 2018, an update of this RP is expected to be carried out before project implementation.

The preparation of this Resettlement Plan (RP) was carried out with Tonga Power Limited and MEIDECC to identify the proposed solar farm sites based on current and previous feasibility studies undertaken by TPL, the Asian Development Bank and the NZ Ministry of Foreign Affairs and Trade between 2014 to April 2017. Land ownership status for each of the proposed 9 sites was confirmed by the Ministry of Lands, Survey and Natural Resources (MLSNR) following site identification and provision of project scope to date.

The project does not involve physical displacement of people and/or destruction of physical structures. It will, however, need to access approximately a total of 60.3 acres (24.4Ha) of private lands allotments¹) for Tongatapu and Outer Islands ranging in size from 1,500 sq m to about 2.5 acres per allotment.

Land Requirement

The land required for the project will affect 7 land allotments mainly in the outer islands of Vava'u, 'Eua, Ha'apai and Niufo'ou. These exclude the two allotments already leased by Tonga Power Limited to build additional battery storage facilities (Popua and Villa). Land requirements under this project are mainly privately-owned and are still to be leased under the project. They are mostly unused or partly used agricultural lands, with five allotments located in 'Eua and Ha'apai. The remaining two comprise of 2 allotments belonging to the King in Vava'u, and one allotment on government land in Niuafo'ou.

¹. This is based on the Constitution of Tonga (1875), every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes. The wind turbine is proposed to be in the agricultural area.

Sub-Project Sites	Estimated Land Requirement	Current Land Use	Land Owners /Allotments	Number of APs
Tongatapu				
1. Solar farm battery expansion (Popua and Villa)	N/A	Solar farm	TPL	N/A
Outer Islands				
 Solar farm (on-grid: Vava'u and 'Eua) 	3.91 acres (15,800 sq m)	Agricultural land (largely unused)	1 private land owner <u>1 King of Tonga</u> 2 Land Owners	1
 Solar farm (off-grid: Ha'apai outer islands and Niufo'ou island) 	2.39 acres (11,300 sq m)	Agricultural land (largely unused)	4 private land owners <u>1 government</u> 5 land owners	4
Subtotal	6.3 acres		7 land owners	5

Ha = hectare, N/A = not applicable, sqm. = square meter, TPL = Tonga Power Limited.

The government approach to secure the land is through lease agreement, similar to government approach in recent ADB projects. This project will help the Government of Tonga to meet its target of 50% renewable energy production by 2020.

Key Stakeholders

There are three categories of stakeholders under this project: (i) government, (ii) private sector including business owners and land owners and (iii) the public including power users. The government stakeholders include: (i) national government, (ii) Ministry of Finance and National Planning (MFNP) (iii) Ministry of Meteorology, Energy, Information, Disaster Management, Environment, and Climate Change (MEIDECC) (iv) Ministry of Ministry of Land, Survey and Natural Resources (MLSNR) (v) Ministry of Internal Affairs (MIA) (vi) Ministry of Commerce, Tourism and Labour (MCTL) (vii) Ministry of Infrastructure (MOI) and (viii) Tonga Power Ltd (TPL).

Under the local government, the local government including the Governor and Town Officers are key stakeholders in the project. Also, His Majesty and the Nobles owning allotments are also project stakeholders. The private sector includes business owners such as members of the Chamber of Commerce and affected individual land owners. Lastly, 13 communities around the project sites who expect to benefit from a more stable and affordable power supply provided by solar and wind energy and battery installation are also key stakeholders under this Project.

Stakeholders' Consultations

The Team consulted with the major stakeholders during site visits from 28 March to 10 April 2017 on all project sites except Niuafo'ou. In total, at least 94 people, 42 women (45%), were consulted during consultations carried out by the Team from 28 March to 10 April 2017 in all project sites. Initial consultations indicated willingness by land owners to lease part of their land to the Project. A second round of consultations was held in August 2018 totaling 102 people from all project sites, comprising 50 women (49%). The community again reaffirmed their support for the project.

Entitlements

All five private land owners are considered as affected persons (APs) under this project thus are entitled to compensation under the Project. Also, the King and the Noble who own the remaining two allotments in the project sites are also expected to be compensated by the government.

	Entitlement Matrix				
Type of Loss Specification Affected People Compensation Entitlements					
Permanent loss of rural or townland	All land losses independent of impact severity	Land Owners	 Long term sub-lease based on the market value of the affected land. Or, once-off compensation equivalent to the 20-year lease, depending on the land owner's preference. Provision of all legal and other expenses associated with the lease. Compensation will be paid for unaffected portions of plots if they become unviable or have their usage rights altered after impact occurs. Payment for the affected assets/improvements on the land to be leased. 		
Economic and physical displacement			 ADB SPS 2009 will be enforced in that assistance will be provided to vulnerable APs/DPs, if any identified, to ensure that living standards the same as, or wherever possible better than, pre-project levels. 		
Standing Crops	Crops affected	Land Users	Cash compensation equivalent to the gross income from the crop calculated at the maximum annual market value of the total annual produce from affected land or the formal government rate – whichever is greater		
Trees	Trees affected	Land Users	 Fruit Trees - The full cost of seedling, cost of preparation of a garden and lost profit at annual income (using maximum annual market values) multiplied by the number of years of fruiting remaining or the regular government rate – whichever is greater. Timber Trees - The full cost of seedling, cost of preparation of a garden and maximum market value of maximum timber production per tree (at full maturity) or the regular government rate – whichever is greater. 		
Any other loss not identified			Unanticipated impacts shall be documented and mitigated based on the principles provided in ADB's involuntary resettlement policy		

Budget

Table 8 below shows the estimated budget for LAR activities below. It is noted that this indicative budget also accounts for land requirements for the associated Tongatapu solar and wind generation facilities which are not funded under the TREP project. A total amount of T\$1,226,500 (USD \$525,888) is the estimated cost. The estimated cost for this resettlement plan which covers only the relevant project components, amounts to only T\$110,000 (USD \$47, 185) as indicated in sub total (B).

S.N.	Items	Cost (TOP)	Cost (USD)
Α	Compensation		
	Land lease for 61Ha inc trees		
1	(TOP 16,667 ² per acre x 60.3)	1.05M	430,895
2	Assistance to vulnerable groups, if required	50,000	21,459
	Sub-Total (A)		452,354
В	Implementation		

² Based on recent cost of acquiring Niutua site for TOP 50,000 for 3 acres each allotment

	Land Survey (DMS)		
	Tongatapu – TOP 20,000		
	'Eua – 5,000		
	Vava'u- 5,000		
	Ha'apai – 5,00 x4 = 20,000		
1	Niuafo'ou- 10,000	60,000	25,725
2	Consultations	50,000	21,460
	Sub Total (B)	110,000	47,185
	A + B Total	1,210,000	499,539
	Contingency (10%)	121,000	49,953
	TOTAL USD	1,331,000	549,492

Ha = hectare, M = million Source: Feasibility Study Consultants

Implementation Timetable

As per Lands Act 1988 revised edition and Ministry of Land's internal policies and procedures, there are about 16 steps to secure the lease title to the proposed sites and approximately seven months to execute for each site. The lease process in Tongatapu and outer islands, however, could be undertaken in parallel with each other, to attempt to secure this for all locations within this period, if possible. This estimate was based on recent lease agreements carried out by government for its renewable energy projects.

S.N.	Activities	Estimated Time	In-Charge
1	Confirmation of land requirement and initial identification of land owner through Town Officer confirmation	16 Weeks (July-August 2018)	TPL and MEIDECC/ Consultants/PMU
	Note: If unregistered land or land owner not identified, the Ministry of Lands, Survey and Natural Resources (MLSNR), to conduct a land survey upon the request of project proponent.	1-2 Weeks	
3	Contact land owner (through the Town Officer)	3 days	TPL and MEIDECC/ Consultants/PMU
4	Meet with land owner to confirm initial agreement to lease the land	1 week	As above
5	Verify land ownership status, government land valuation and market valuation	2 weeks	Ministry of Lands Private Valuer
6	Agree proposed compensation amount within TPL and MEIDECC before negotiation with land owner	1 week	TPL/ MEIDECC Committee
7	Organize follow-up meeting with land owner, or representative, to negotiate price	2 weeks	TPL/ MEIDECC Consultants/PMU
8	Allow time for land owner to consult with family and own land valuer	1 week	Land owner
9	Prepare government lease form and compensation agreement form	1 week	Ministry of Lands
10	Facilitate signing and payment of lease form and compensation agreement (50% payment or as per agreement) with land owner(s) with <u>Third Party</u> <u>Validation³</u>	1 day	TPL/ MEIDECC Consultants/PMU

³ A Third-Party Validator could be someone who is a respected member of the general community who could certify that the affected person entered into the agreement without coercion and with informed consent.

S.N.	Activities	Estimated Time	In-Charge
11	Compile forms and return to MLSNR for Minister's endorsement to get to Cabinet approval	1 week	TPL/ MEIDECC Consultants/PMU
12	Submit for Cabinet approval	1-2 weeks	MLSNR
13	Payment (final 50% or as per agreement with land owners)	1 day	TPL/ MEIDECC Consultants/PMU
14	Collect Deed of Lease from MLSNR	1 week (if priority)	TPL/ MEIDECC Consultants/PMU
15	Final land survey and submission to MLNSR for filing	1 week	TPL/ MEIDECC MLSNR
16	Proponent submits the Deed of Lease and compensation completion report to ADB	1 week	TPL/ MEIDECC Consultants/PMU
	Estimate Time Frame	7 Months	
17	Commencement of civil works		

I. PROJECT DESCRIPTION

A. General Description

Background

1. ADB is providing assistance to prepare safeguards due diligence for renewable energy proposals at 9 sites throughout four island groups in Tonga for submission to the Green Climate Fund (GCF) Board.

2. The Board of the Green Climate Fund (GCF) announced its support for the *Pacific Islands Renewable Energy Facility* (the Facility) in December 2016. The Facility will help seven Pacific island countries transition to a renewable energy future. The Facility objective is to transform the electricity production sectors across the Pacific to low carbon, climate resilient pathways, and the Facility outcome will be expanded access to clean, resilient and affordable energy.

Tonga Renewable Energy Project (TREP)

3. The proposed Tonga Renewable Energy Project (TREP) takes place within the Facility and is the second project submitted after the Cook Islands. <u>Expected Project benefits</u> from TREP include delivery of an estimated lifetime reduction of 340,395 tCO_{2e} emissions, and it will contribute significantly to increasing the contribution of renewables to Tonga electricity production from under 10% to 50% by 2020. <u>Paradigm shift</u>: TREP will play a central role in carrying renewable energy use in Tonga to a tipping point – after which renewable energy will become a more default investment for both private and public sectors.

4. TREP investments focus on renewable offgrid energy generation and Battery Energy Storage Systems (BESS) which are both on-grid and offgrid. TREP invests on Tongatapu (BESS only) and at least seven outer islands. TREP also includes the necessary capacity development and training programs to ensure long-term sustainability of project impacts.

- 5. The Project will comprise the following sub-projects:
 - **Output 1: BESS on Tongatapu** Installing multiple units of BESS with a total installed capacity of 10.1 MW / 19.9 MWh to complement the renewable energy systems;¹³
 - Output 2: Grid-connected renewable energy generation on 'Eua and Vava'u islands Installing the on-grid solar PV plants with total capacity of 650 kW, coupled with small BESS with total capacity of 1.3 MW / 1.4 MWh on 'Eua and Vava'u;
 - Output 3: Renewable-based hybrid systems and mini-grids on outer-Islands -Installing mini-grid renewable-based hybrid systems consisting of 501 kW solar PV coupled with 4.3 MWh BESS in total in five outer islands which includes installation of the mini-grid; and
 - Output 4: Strengthening of capacity building and project management (i) improved capacity to assess renewable energy technologies and set off-take tariffs (TPL); (ii) for power purchase agreements for private sector funded investments; (iii) developed capacity of executing entities to manage assets and undertake operations and maintenance and improve community engagement; (iv) implementing agencies supported to provide project management in line with international standards and best-practices; and (v) experts' support on both design and procurement activities, construction supervision, and development of operations and maintenance manuals.

B. Description of Project Components

6. In total, there are 9 proposed sites under the Project. Two are located on the main island of Tongatapu and one site in each of the islands of 'Eua, Vava'u and Niuafo'ou and four sites ('O'ua, Tungua, Kotu and Mo'unga'one) in Ha'apai. Through careful engineering design, the project will lease the minimum land required by the project and not lease more than what is required.

7. **Main Island (Tongatapu)**. On the main island of Tongatapu, there are two proposed sites for building additional BESS systems (Grid stability and Load shifting) for all of Tongatapu's current and proposed solar and wind energy sources (5 solar and 1 wind) There are three existing solar sites in Popua, Vaini and Villa with proposed new two solar sites in Fahefa and Matafonua as well as the one wind farm site along the coast of Niutoua village⁴. It is noted that only the two BESS storage facilities will be provided under the project.

8. **Outer Islands ('Eua, Vava'u, Ha'apai and Niuafo'ou)**. All projects for the outer islands are for solar energy. The project proposals in 'Eua and Vava'u are to expand both generating and storage capacities of these on-grid solar farms. While the five proposed off-grid sites (four islands in Ha'apai) and on Niuafo'ou, are to construct a new mini-solar farm with storage facilities.

Table 1: Summary of Proposed Works

Project location / existing use	Project Description	Additional Storage capacity
1. Popua. Existing power generation site. solar farm, and BESS	Grid stablity BESS	5.1MW/2.5 MWh battery
2. Vila. Existing solar farm and BESS	Load shifting BESS	5.MW/17.4 MWh battery

Summary of Proposed Works in Tongatapu

Summary of Proposed Works in Outer Islands

Project location / existing use	Project Description	Additional Generation Capacity	Additional Storage Capacity
1. 'Eua. Adjacent to existing solar farm. Unused agricultural land.	Additional 400 kW solar generation, BESS	350 kW	0.4MW/0.9 MWh
2. Vava'u. Across road from existing power generation and solar farm. Old coconut plantation (unused).	Additional 900 kW solar generation, BESS	300 kW	0.9MW/0.45 MWh
3. Ha'apai outer islands⁵ ● 'O'ua ● Tongua	4 x Mini-grid systems with solar PV generation, battery storage and small generator	0.25MW (new)	0.47MWh (new)

⁴ The wind farm will be built continuously along the coast of Niutoua. The breakdown of the subproject into 1.3 MW and two 2MWcapacity is for technical reason (for the power system not to overflow) but for the construction, the three wind farms (20 wind turbines) will be constructed next to each other thus considered as on one site (Niutoua village).

⁵ Existing identified sites are vacant grassy plots within or adjacent to village. Except Kotu site, with some mango and breadfruit trees and pandanus plants.

Project location / existing use	Project Description	Additional Generation Capacity	Additional Storage Capacity
KotuMo'unga'one			
4. Niuafo'ou	Solar mini-grid and battery storage	0.250MW (new)	2.02MWh (new)

II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

A. Potential Impacts

9. There is no expected risk of displacement, loss of home, and/or loss of major income source. However, the affected families are likely to lose approximately a total of 6.3 acres of private lands (allotments⁶) for the Outer Islands. All interviewed APs view leasing their land as a welcome opportunity since the sites are idle or partly used agricultural or town allotments. In addition, the APs also have other accessible allotments for agriculture. Most importantly, the potential lease income from the project is a much welcome opportunity for the land owners and their families. During interviews, APs stated that they are very much agreeable to allow the government to use the land for the solar projects to improve their power source and to hopefully decrease their household's power cost.

10. There is no expected negative impact on the social structure of the APs and the communities around the project site since land acquisition will not require physical displacement. There are no expected adverse impacts on cultural identities or heritage of the APs resulting from land acquisition. In addition, keeping World War II historical sites in the area intact, such as bunkers and canons, will be considered in the project design. During the course of the social team fieldwork, no sacred sites or similar areas were identified.

11. Due to the above, the project has been categorized as Category B thus requiring the preparation of this RP. This is due to the need to lease private-owned lands and potential impacts to non-land assets including crops and trees. This RP identifies the involuntary resettlement impact (economic due to loss of access to the land for the lease period by the land owner) and will be further updated after detailed design

12. In total, the 6.3 acres land requirement will affect 7 affected land allotments in all project sites. These exclude the two allotments already leased by Tonga Power Limited to build additional battery storage facilities (Popua and Villa). These 7 allotments, are mainly privately-owned, are still to be leased under the project (see Table 1 below). They are mostly unused or partly used agricultural lands with 5 individually-owned allotments (located in 'Eua and Ha'apai), 1 allotment belonging to the King (Vava'u), and 1 allotment on government land on Niuafo'ou.

Tongatapu

In the main island of Tongatapu, the extension of two existing solar farm sites with BESS under TREP (Popua and Villa) will not require land acquisition. Both proposed sites are within current TPL leased lands for 20 years⁷ (Appendix A TPL lease Records). TREP BESS project components will be co-located with the existing solar farms and Figure 1 illustrates the map of existing solar sites on the main island of Tongatapu with associated new solar sites (red circle), and Niutoua wind farms (top blue circle).

Figure 1 – Tongatapu TREP BESS and associated new solar and wind farm sites

⁶ Based on The Constitution of Tonga (1875), every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes.

⁷ Leases were secured with land owners by TPL on February 2012 (Popua), and June 2015 (Villa).



Outer Islands

13. All the seven proposed sites in the four outer islands will require private lands estimated to be about 6.3 acres (2.5 Ha) in total. Five are individually-owned allotments, one allotment belonging to the King of Tonga (Vava'u), and one site on government-owned land (Niuafo'ou). This will be confirmed after detailed design.

14. The land for on-grid sites in the outer islands ('Eua and Vava'u), will be required for the construction of new solar farms with storage facilities in these communities. In 'Eua, the proposed site is within the main town of the island ('Ohonua) and in Vava'u, the proposed site is at the outskirts of the town area (Neiafu).



Figure 3. Outer Island - Vava'u proposed site (yellow box)



15. The land for the off-grid sites (Ha'apai and Niuafo'ou), will be utilized for building a minigrid to upgrade the source of power supply for these remote communities (at least 1,650 people⁸) from solar home system (SHS) that powers mostly household bulbs. This is to increase the power supply capacity to power essential home appliances including refrigerators, freezers, washing machines, and flat irons. Also, to facilitate income generating activities including ability to operate carpentry tools and power larger communal facilities to allow, particularly, women's groups to weave mats at night. Currently, some of these households can use these appliances with the help of few diesel generators on their islands; however, paying almost twice the price of fuel compared to the capital (Tongatapu). Figure 4. Outer Island Ha'apai – 'O'ua

⁸ Tonga GCF Concept Note, 17 March 2017



Figure 5. Outer Island Ha'apai –Tungua



Figure 6. Outer Island Ha'apai -Mo'unga'one Proposed site (#2)

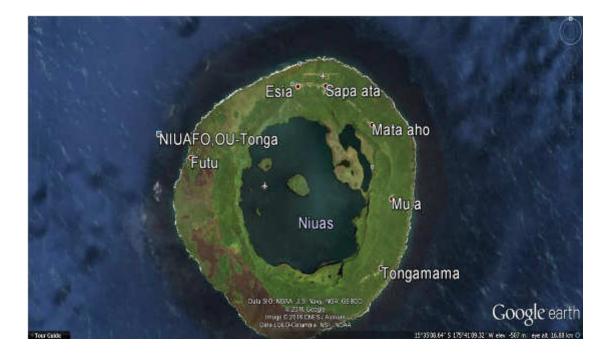


Figure 7. Outer Island - Kotu



16. In the four Ha'apai outer islands, the majority of the proposed sites are in the center of the community ('O'ua, Kotu, and Mo'unga'one) with the exception of one site (Kotu) where the proposed location is at the northern end of the community. In Niufo'ou, the proposed site is located between Sapa'ata in the north and Mata'aho to the south. The Niufo'ou mini-grid will extend out from the centralized solar plant to all of the villages by two long feeders. One feeder will extend from the solar plant east to Esia while the other feeder will extend from the solar plant south down as far as Tongamama'o.

Figure 8. Niuafo'ou island map (proposed site is up north on top of Esia and Sapa'ata)



17. Table 2 below provides the breakdown of land requirement and number of affected persons (APs) or allotments for each project site:

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirements	No. of Affected Allotments
1. Popua. Existing power generation site. Existing solar farm, and BESS	Grid stability BESS,	-	5.1MW/2.5 MWh battery	No additional land required.	n/a
2. Villa. Existing solar farm and BESS	Load shifting BESS	_	5.MW/17.4 MWh battery	No additional land required.	n/a

Summary of Proposed Works in Tongatapu

Summary of Proposed Works in Outer Islands

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirement	No. of Affected Allotments
1. 'Eua. Adjacent to existing solar farm. Unused agricultural land.	Additional 400 kW solar generation, BESS	3500 kW	0.4MW/0.9MWh	3,800 m ² (.94 acre)	1
2. Vava'u. Across road from existing power generation and solar farm. Old coconut plantation (unused).	Additional 500 kW solar generation, BESS	300 kW	0.9MW /0.45 MWh	12,000 m ² (2.97 acres)	1
3. Ha'apai outer islands ⁹	4 x Mini-grid systems with	0.25MW	2.02MWh	1,900 m ² (.47 acre)	1

⁹ Existing identified sites are vacant grassy plots within or adjacent to village. Except Kotu site, with some mango and breadfruit trees and pandanus plants.

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirement	No. of Affected Allotments
 'O'ua Tongua Kotu Mo'unga'o 	solar PV generation, battery storage and			2,960 m ² (.73 acre) 2,205 m ² (.55 acre)	1
ne	small generator			1,500 m ² (.37 acre)	1
4. Niuafo'ou:	Solar mini-grid and battery storage	0.25MW (new)	2.275MWh (new)	2,765 m ² (.68 acres)	1
			Sub Total	^{27,130} m ²	7
				6.3 acres	
				(2.5 Ha)	
	Total Land Required (Tongatapu and Outer Islands)				

BESS = batter energy storage system, Ha = hectare, m = meter, MW = megawatt, MWh = megawatt-hour, PV = photovoltaic.

B. Summary of Key Impacts

18. Table 3 below shows a summary of the key assets that will be acquired and some economically affected persons or APs (individual private owners of these allotments) (see Appendix B-Land Titles).

19. All sites will not require removal of commercial or residential structures. There are however some sites that may require cutting of productive trees and cash crops that will require compensation. This will be determined after the Project's detailed design.

20. The majority of the proposed sites are agricultural lands that are either idle or planted with trees, including mango or breadfruits, and cash crops, such as banana plant and pandanus plants used for making the Tongan mats, an important cash source for Tongan families in the rural areas.

21. The owners of private allotments are considered APs as land will be required to be leased from the land owners for the use of the project. The maximum lease period allowed by law for these allotments is 20 years; except 'reverted' lands or lands whose ownership has been returned to the government, the maximum lease period allowed is 50 years.

22. In terms of impact, APs in the outer islands are to lose under <10 per cent of their bush allotments. Interviews conducted by the Feasibility Study Team suggest that access to land by APs for agricultural purposes is not only limited to one allotment due commonly to Tongan family's circumstances where they tend to have access to other lands (although unofficially). For example, this may be through land owned by relatives moving to the main island or overseas commonly to New Zealand or Australia.

23. Also, the majority of the proposed sites are often idle or partly tended agricultural lands due to migration particularly in the outer islands. Moreover, another reason cited is increased interest by the younger generation to rely on paid employment compared to farming for food or income was cited during consultations. Land owners or their caretakers welcome the prospect of leasing lands to the Project due to the potential income it may bring to their families, either through a lump sum payment or annual fees.

Table 3: Summary of Land Requirement and Displaced People								
Sub-Project Sites	Estimated Land Requirement	Current Land Use	Land Owners /Allotments	Number of APs				
Outer Islands								
1. Solar farm (on-grid: Vava'u and 'Eua)	3.91 acres (15,800 sq m)	Agricultural land (largely unused)	1 private land owners 1 King of Tonga	4				

Agricultural land (largely unused)

4 private land owners 1 government

7 land owners

2.39 acres (11,300 sq m)

6.3 acres

10

2. Solar farm (off-grid: Ha'apai outer islands and Niufo'ou island)

Total

III. SOCIOECONOMIC INFORMATION AND PROFILE

A. Affected People

24. **APs.** Overall, the 2.5 Ha required by the project for the 7 of 9¹⁰ sites in the five islands of Tonga¹¹, will affect 7 land owners including (i) 5 private land owners (1 from 'Eua, 4 from Ha'apai), (ii) His Majesty, the King of Tonga (Vava'u), and (iii) the government (Niuafo'ou). There are no affected landowners on Tongatapu.

25. **'Eua.** There are 4 APs belonging to the household of the only land owner in the area (Lesiaki Luaki). His son is the TCC Mobile branch manager in 'Eua. Two of the 4 land owners in the four outer islands of Ha'apai are in New Zealand and two are in the island. There are about 10 APs belonging to 2 land owners on the islands.

26. **Ha'apai.** In Ha'apai, 3 of the 4 land owners in the 4 project islands are living overseas (New Zealand) and one on-island. Based on the 2016 Census, it is estimated that there are about 4 APs belonging to the only land owning household living on the island (Tungua). There were however caretakers for each site who are mostly family members e.g. parents or sibling. In particular, the caretaker for the registered land owner in 'O'ua island who has been living in Australia forsometime are the land owner's parents; in Kotu, the caretaker of the land is the elderly brother of the heir to the land has been living in New Zealand for over 30 years; and the land owner's heir in Mo'unga'one, is also living overseas for more than 50 years.

27. **Livelihood.** The 1 of 4 private land owners and their households in Ha'apai, rely mainly on fishing and making mats while the other two are living in New Zealand. While the private land owner in 'Eua relies on private employment as TCC Mobile Manager for the island.

28. There are no vulnerable groups identified during this study. This however will be confirmed during detailed design.

29. **Gender.** Following the land ownership law under the Constitution of Tonga that allows only the eldest male child inherits land, all 7 private land owners are males except one female (widow), who has temporary ownership of the land until she passes away or transfers it to her eldest son.

30. The table below provides the list the name of the affected land owners, their gender, and estimate of potential losses:

Project Site	Land Owner ¹²	Estimated Land (Acre)	Structure Lost	Crops & Trees	Affected Persons			
					Phys	Physically Economica		omically
Tongatapu					м	F	М	F
1. Popua	Tonga Power Ltd	n/a	n/a	n/a	_			_
2. Villa	Tonga Power Ltd	n/a	n/a	n/a		_	_	_
Outer Islands	Outer Islands							
	1. Lisiate Luaki,	0.94	_	твс	_	_	1	
1. 'Eua	Block 68/105, Lot 31							

Table 4: Details of Land Requirement, Loss, and List of Land Owners

¹⁰ The other 3 are already leased by TPL

¹¹ Tongatapu, 'Eua, Vava'u, Ha'apai outer islands, and Niuafo'ou

¹² Source: Ministry of Lands, Survey, and Natural Resources, April 2017

Project Site	Land Owner ¹²	Estimated Land (Acre)	Structure Lost	Crops & Trees	Affected Persons		
2. Vava'u. Old coconut plantation	2. His Majesty	2.97	_	Old coconut trees		1	
3. Ha'apai Out	er Islands						
- 'O'ua	3. Penioni Tohi (lives in New Zealand)	0.5	_	Vacant land		1	
	O'ua Island, Lot 18						
- Tungua	4. 'Heneli Hopoi	0.73	_	Vacant land		1	
	Block 141/116, Lot 53						
- Kotu	5. Simote Ilangana (lives in New Zealand)	0.55	_	твс		1	
	Kotu Island, Lot 30						
- Mo'unga'one	6. U. Foliaki Fainga'anuku	0.37	_	Vacant land		1	
	Block 162/131, Lot 46						
4. Niuafo'ou	7. Government owned	0.68	_	Vacant land		NA	
	Total (Acre/Ha)	2.5	Hectare s	Total Allotments		7	

F = female, Ha = hectare, M = male, N/A = not applicable, TBC = to be confirmed.

B. Socioeconomic Profile of Project Communities

Demography

31. The preliminary published data from the 2016 census records a total population of 100,745 people for Tonga, distributed over 36 of its 172 islands. This is compared to 103,036 recorded in the 2011 census, showing a decrease of 2,291 people over the past 5 years¹³. This reduction is due to the high rates of emigration from Tonga, as the diaspora community continues to grow, particularly in New Zealand, Australia, and the USA.

32. Some 70 percent of the population resides on the largest island of Tongatapu, on which the capital, Nuku'alofa, is situated. There has been a steady increase in urbanization, with people moving to Tongatapu, particularly in Nuku'alofa, for increased employment and education opportunities. Over the last three decades, the population density in Nuku'alofa increased from 184 persons/km² to 245.1 persons/ km², well above the national figure of 150.5 persons/ km². This population growth increases pressure on land demand for settlement, particularly in the urban areas.

Economy

33. In general, Tonga has high standards of education and health. However, the economy is vulnerable, with limited local opportunities, a steady outflow of skilled persons moving overseas for opportunities, and dependence (70%) on rural livelihoods of agriculture and fisheries, where access to markets can be limited.¹⁴

34. Subsistence agriculture plays an important role for many families, contributing to food production for the family, as well as additional income. Production focuses on a range of traditional root crops such as yams, taro, sweet potato and cassava. There has been

¹³ Statistics Department (2017): Tonga National Population and Housing Census 2016. Preliminary Results.

¹⁴ IFAD: *Rural Poverty in Tonga*. Available at <u>http://www.ruralpovertyportal.org/country/home/tags/tonga</u>. Accessed 24/4/17.

commercial production with a focus on squash pumpkin for export. However, considerable effort has been made to diversify into higher-value export crops, notably vanilla and watermelon. Issues of quality control, disease management and market demand fluctuations make growth in this sector challenging.

35. Remittances sent from relatives working abroad also play a significant role in the Tongan economy, and in the economy of individual households. Recent global economic downturns have significantly impacted on this financial flow, increasing the level of hardship experienced by many families in Tonga.

36. Looking at Tonga's GDP, the agriculture was the main economic contributor to the Tongan economy from 2000 – 2009. Public administration and services strictly follow this. When the GDP data is aggregated to the sector level, the services sector is the highest contributor to the GDP. This indicates a change in the economy, with gradual diversification from agriculture to services. It is expected that this sector will continue to strengthen, particularly with opportunities in the tourism market. Following is a brief description of each proposed site:

1. Tongatapu

37. There are two project sites in Tongatapu with four associated facility sites. Three are located in the rural area including Fahefa, Matafonua, and Niutotua and another three are located within the urban area of Popua, Vaini and Vila. Tofoa (the village location for Villa site), has the largest population at 3,510 in 2016 census, followed by Vaini at 3,294 and Popua, with a current population of 3,294.

38. Meanwhile, in the rural project sites, Niutoua is the largest village with the population of 671 during the 2016 Census. This was followed by Fahefa at 431 people, and Matafounua at 235 people.

Village	Population (2016 Census)	Change from 2011 Census
1. Popua (existing power generation site)	1,854	- 0.8%
2. Vaini (village near existing solar farm)	3,294	+ 0.4%
3. Tofoa (village location for Villa site)	3,510	- 0.1%
4. Fahefa (village near proposed new solar facility with BESS)	431	+ 0.8%
5. Matafonua (village near proposed new solar facility with BESS)	235	+ 7.5%
6. Niutoua (village closest to proposed wind farm with BESS)	671	- 1.9%

 Table 4: Population of Villages in Proximity to each Project Site - Tongatapu

2. Outer Islands

39. There are seven project sites in the outer islands: one on each of the project sites on the island of 'Eua, Vava'u, four in the outer islands of Ha'apai and Niuafo'ou. Vava'u has the largest population in the outer islands outside Tongatapu with a population of 13,740, followed by 'Eua with a population of 4,950 and Niuafo'ou with 493 people. The four Ha'apai outer islands have the smallest population ranging from 92 to 232.

able 5. Population of Villages in Proximity to each Project Site - Outer Islands

Outer Islands	Population (2016 Census)	Population (2011 Census)	Change from 2011 Census	Mal	es	Fem	Females		Households	
				2011	2016	2011	2016	2011	2016	

1. Vava'u	13,740	14,922	-7.92	7,559	6,872	7,363	6,868	2,834	2,742
2. 'Eua	4,950	5,016	-1.32%	2,514	2,489	2,502	2,461	870	885
3. Ha'apai-'O'ua	116	144	-19.44%	83	69	61	47	28	25
4. Ha'apai- Tungua	187	232	-19.40%	121	94	111	93	43	37
5. Ha'apai-Kotu	129	178	-27.53%	91	65	87	64	36	30
6. Ha'apai- Mo'unga'one	63	92	-31.52%	37	31	55	32	20	15
7. Niuafo'ou	493	523	-5.74%	277	264	246	229	114	101

2. 1 Vava'u

40. Vava'u is the name of the main island in the Vava'u group of islands in the north. The island is formed from raised coral, with a maximum elevation of 213m and a terraced landscape formation. The coral limestone is overlain with volcanic soils up to 9 m in depth.

41. The area for the proposed development is at the existing TPL power generation site at Kameli on the outskirts of Neiafu. The proposed site is connected to the municipal power supply and the extension of the battery storage capacity of the existing solar farm will further contribute to power stability and gradual reduction of power tariff on the whole island. Neiafu is the trading and administrative center in Vava'u, located beside the Port of Refuge, which is a deep-water harbor on the south coast of the island.

42. The population of Vava'u from the preliminary data of the 2016 Census is 13,740, made up of 7,559 males and 6,872 females. This has declined by nearly 8% since the 2011 Census. Neiafu is the second largest town in Tonga. The 2011 Census records a population of 5,774, with 2,893 males and 2,881 females. In 2016 this declined to a total population of 5,239, representing a reduction of approximately 9%.

43. There is a piped water supply, but dissatisfaction with water quality is common, as it has high calcium content affecting the taste. Many people rely on water tanks for their potable water supply. In the Community Development Plan for Neiafu¹⁵, inadequate water supply (including lack of or broken storage tanks, and no piped water to high areas) was listed as the number one priority for men, women and youth. Other critical issues include lack of waste services, poor sanitation, contaminated environment, poor road conditions and lack of street lights.

44. There is an airport in Vava'u, which now receives international flights from Fiji on a regular basis. The Vava'u Port also hosts smaller passenger cruise ships, providing opportunities in the handicraft and tourism sector. As a long-term host of yacht visitors and other tourists, Neiafu has an established infrastructure that includes restaurants, hotels, whale watching and diving businesses, and guided tour businesses. These economic opportunities combine with government and local business, as well as the more traditional activities of fishing, agriculture and handicrafts to create the economic backbone of Neiafu.

2. 2 Ha'apai

2.2.1 'O'ua

45. 'O'ua is a low-lying atoll located to the southeast of Tungua in the Lulunga District. The island has the one village of 'O'ua, comprised of 28 households. There were 83 males and 61 women recorded in the 2011 census, with a total population of 144. Preliminary data from the 2016 census presents a decline in 'O'ua's population to 116 people. This is a decrease of

¹⁵ Ministry of Internal Affairs (2015): Neiafu Community Development Plan. Available at <u>https://media.wix.com/ugd/6d6824_e0e9fb86f7ea4b33921c2013f1a0d1f2.pdf</u>

19.44%, reflecting the migration for greater economic and educational opportunities outside of 'O'ua.

46. Water storage is a critical issue in 'O'ua, particularly given Ha'apai's vulnerability to drought. In 2014 there were 65 rainwater storage tanks recorded in 'O'ua for 25 households¹⁶, as families have prioritized this household need. There is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

47. A seasonal primary income source for the island is sea cucumber harvesting, selling them to Chinese buyers. Harvesting around the island is a restricted; exclusive only to the people of 'O'ua. Also, a major economic activity in recent years has been the participation of people from 'O'ua in the Australian seasonal visa program, with approximately 30 people traveling to work in the fruit picking seasons and supplying significant financial resources to their families. This has been in addition to the more traditional livelihoods of handicrafts and fishing.

48. During community consultations, following are the concerns identified by the community:

- Limited capacity of the exisiting solar home system, with some of them broken
- Limited income source to pay monthly contributions

2.2.2 Tungua

49. Tungua is an island located to the southwest of Tofua Island in the Lulunga District in Ha'pai. The island is elevated at approximately 19 meters above sea level.

50. There are 43 households in Tungua, with 121 men and 111 women recorded as at the 2011 census. However, this total population of 232 has reduced to 187 people according to the preliminary data from the 2016 census. This represents a decline in population by 19.4%.

51. There is no running water supply on Tungua, or electricity, aside from the power provided by Solar Home Systems (SHS), which not all households have. Those without SHS use either kerosene for lighting and some with diesel-powered generators ('gensets') or cell powered LEDs. (Those households [about 12] chose not to have SHS due to the TOP200 installation fee initially charged as starting maintenance funds for the project.)

52. There is access to the TCC mobile network, although reception can be poor. There is no clinic on the island; patients travel by boat, about 30-45 minutes trip, to the main island of Pangai to seek medical attention.

53. The livelihoods in Tungua are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. There are no community members who have traveled under the seasonal worker visas to Australia, but the Town Officer expressed that he is keen to explore this opportunity to boost income into the community.

54. Critical issues of concerns from the community, as identified in the Tungua Community Development Plan, were collated from surveys of women, men and youth. The merged results of the five most critical issues (in order of priority) are:

- lack of water (with some storage tanks damaged),
- poor sanitation,
- limited access to electricity,
- coastal erosion and
- poor standard of kitchen facilities.

¹⁶ Sustainable Livelihoods Alleviating the Poor (SLAP) Inc (2014): *Luluunga District Water Supply Report. Available at ttps://www.worldpulse.com/sites/default/files/post/6610/34865/post_document/0b16de0dfc1f6f5fbbe68a73b2ddf05d/lulunga_water_supply_edited.pdf*

2.2.3 Kotu

55. Kotu Island is an island in Lulunga District, in the Ha'apai islands of Tonga. The island is elevated at approximately 18 meters above sea level.

56. There are 30 households in Kotu, with 65 men and 64 women in the 2016 Census, a decline of 27.5% from the 2011 Census.

57. There is no running water supply on Kotu, or electricity, aside from Solar Home Systems (SHS) for all households on the island. Kotu has an underground water supply, although water pumped from this freshwater lens is untreated and vulnerable to contamination.¹⁷ There is access to the TCC mobile network, although reception can be poor. There is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

58. The livelihoods in Kotu are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. Kotu is known in Tonga for its good kava quality. Men produce powdered kava to sell to other islands and Tongatapu and are one of the main income sources for some families on the island. Also, the island is known for building local fishing boats selling them to other fishers within the Ha'apai group of islands.

59. There are no community members who have traveled under the seasonal worker visas to Australia, but the Town Officer expressed that he is keen to explore this opportunity to boost income into the community.

60. Critical issues of concerns from the community, as identified in the Kotu Community Development Plan, were collated from surveys of women, men and youth. The merged results of the five most critical issues (in order of priority) are:

- lack of water (with some storage tanks damaged),
- lack of navigational facility/safety equipment
- lack of flush toilet facilities
- lack/damaged solar power
- poor telecommunications and lack of sports equipment

2.2.4 Mo'unga'one

61. Moʻungaʻone is an island in Lifuka District, in the Ha'apai islands of Tonga. The island has an elevation of 21 meters above sea level.

62. There are 15 households in Mo'unga'one, with 31 men and 32 women during the 2016 Census, a decline of 31.5% from the 2011 Census.

63. There is no running water supply on the island, and people rely on rainwater for drinking. There is no electricity, aside from the Solar Home Systems (SHS), where about a third is not working due partly to the damage by Cyclone Ian in 2014. The majority of households have switched back to kerosene and use dry cell powered LEDs since then (MEIDECC plans to restore SHS electricity by end of the year through Italian funding). Unlike other Ha'apai islands where there are at least freezers, washing machines and other appliances, Mo'unga'one, community did not have these. There is access to the TCC mobile network, although reception

¹⁷ Sustainable Livelihoods Alleviating the Poor (SLAP) Inc (2014): *Luluunga District Water Supply Report. Available attps://www.worldpulse.com/sites/default/files/post/6610/34865/post_document/0b16de0dfc1f6f5fbbe68a73b2ddf05 d/lulunga_water_supply_edited.pdf*

can be poor. Similar to the other island of Ha'apai, there is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

64. The livelihoods in Mo'unga'one are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. There are no community members who have traveled under the seasonal worker visas to Australia, but people are keen to explore this opportunity to boost income into the community.

65. Concerns from the community brought up during consultations include:

- Limited capacity of the solar home systems with some them broken
- Limited income source to pay monthly contributions

3. 'Eua Island

66. 'Eua is within Tonga and is north 'Eua and east of Pangai. The island is elevated at approximately 112 meters above sea level.

67. There are 885 households in 'Eua, with 2,489 men and 2,461 women during the 2016 census. This represents a slight decline in population by 1.3%.

68. Being a larger island and closer to the capital, the capital of 'Eua have running water supply and rain water tanks. The island is connected to the main grid, mainly powered by diesel and recently supplemented by solar energy through the construction of a solar farm in November 2016 operated by the Tonga Power Ltd. There is access to the TCC and Digicel mobile networks on the town center (and an internet), although reception can be poor in the outlying areas. There is also an airport in 'Eua that could be reached by 7 minutes flight and served by a small 7-seater plane. A regular 3-hour ferry service from Tongatapu is also an alternative transport to get to the island.

69. The livelihoods in 'Eua are trading, agriculture, fishing, and tourism revolving around the increasingly popular whale watching destination following Vava'u from June to October.

4. Niuafo'ou Island

70. Niuafo'ou is an island located 574km north of Tongatapu island. Niua'fou is still an active volcano. The island ring encloses two lakes: the largest, Vai Lahi, is a crater lake 23 meters above sea level, 4 kilometers wide and 84 meters deep. The coastline is rocky and steep with only a few stony black sand beaches. The only landing place on the island is the end of a lava flow at Futu, in the west. All the villages are in the north and east.

71. Niuafo'ou is the most northerly island in the Kingdom of Tonga. It is a volcanic rim island of 15km. The island has a total population of 493 people with 264 men and 229 women (Census 2016), spread in eight small villages¹⁸.

72. Public places like the post office, telecommunications station, and airport are in Angahā in the north, while a high school is located in Mu'a. At least four primary schools are spread across the eight villages on the island. Air transport is limited to fortnightly flights, and government ships bring goods and passengers from the capital once a month. (The government ship reportedly only comes to the island once a year in the 1990s to pick up students studying in Vava'u or Tongatapu in January and bring them back in December to spend the Christmas holiday with family before going back to school again a month later.) There's no proper wharf on the island, with access only by small dingy and it is very dangerous in rough seas.

¹⁸ Comprised of villages of Esia, Kolofo'u, Sapa'ata, Mata'aho, Mu'a, Fata'ulua, Petani, and Tonga Mama'o,

73. There is no electricity except for the Solar Home Systems providing power to individual households for about three bulbs and mobile phone charging. 169 solar home systems were installed in 2006 by NZAid. 40 solar home systems were rehabilitated (replacement of batteries and charge regulators). 129 solar home systems are still in poor condition¹⁹. There is no running water, and the main source is through collection of rainwater stored in water tanks.

74. All eight villages have some access to communication services through mobile phones. Power is limited to the home solar systems providing power to only light bulbs and some cellphone charging capacity. There are no freezers on the island thus items such as ice blocks and ice cream are only available once a month when the government ships arrive.

75. Fishing, weaving, and remittances are the most common source of income. Mats woven by local women island brings in the most income as they are well sought especially by overseas buyers bringing in thousands of Pa'angas to the families during school time and Christmas. They, however, require hard work and time thus women in each household work long hours to produce these woven mats and 'ta'ovaala' (traditional mat worn around the waist by both local and women).

C. Gender and Indigenous People

76. All private landonwners are males except for one female who is temporarily holding the title for the land intended for her eldest son. Women interviewed indicated that the expected project impacts, including the ability to use home appliances and electronic tools to earn income, are mainly positive.

77. There are no Indigenous Persons (IP) who are considered as distinct and vulnerable. No one is marginalized due to their language, educational achievement, and skin color requiring protection from the government and the project thus do not trigger the IP Safeguards as defined by the ADB Safeguard Policy 2009.

¹⁹ ADB Outer Island Phase 2 Offgrid Site Visit Report, March 2016

IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

A. Stakeholders

78. There are three categories of stakeholders under this project: (i) government, (ii) private sector including business owners and land owners and (iii) the public including power users. The government stakeholders include: (i) national government, (ii) Ministry of Finance and National Planning (MFNP) (iii) Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) (iv) Ministry of Ministry of Ministry of Land, Survey and Natural Resources (MLSNR) (v) Ministry of Internal Affairs (MIA) (vi) Ministry of Commerce, Tourism and Labour (MCTL) (vii) Ministry of Infrastructure (MOI), and (viii) Tonga Power Ltd (TPL).

79. Under the local government, the local government including the Governor and Town Officers are the main stakeholders in the project.

80. Also, His Majesty and the Nobles owning allotments are also stakeholders in the project.

81. Individual land owners and the private sector (business owners) including the Chamber of Commerce are also considered as main stakeholders. Other stakeholders include civil society members including Tonga National Council of Women and Tonga National Center for Empowerment (TNCWE).

82. Lastly, the 13 communities around the project sites who expect to benefit from a more stable and affordable power supply provided by solar and wind energy and battery installion to grid connected system are also considered as key stakeholders.

B. Consultation with Affected persons and Stakeholders

Consultations Held

83. The Team consulted with the major stakeholders during site visits from 28 March to 10 April 2017 on all project sites except Niuafo'ou. Due to twice a month flights to the outer island, consultation will be conducted during detailed project design. However, a Team comprising of government and development partners including ADB and DFAT held consultations on the island in March 2016. They confirm the strong support by the community for the project. Although there is no separate minutes of meeting for these consultations, the Team's findings were discussed in the site report visit (Appendix D).

84. In total, at least 94 people, 42 women (45%), were consulted during consultations carried out by the Team from 28 March to 10 April 2017 in all project sites.

In Tongatapu, the Project consultations, in coordination with the Ministry of Internal Affairs, started with a meeting of 12 Town Officers in the project sites on 28 March 2017. In the Outer Islands, the Team consulted key stakeholders in Vava'u starting with the Governor on 28 March 2017 in Tongatapu. Another consultation followed this meeting through an MEIDECC-organized meeting on 29 March 2017, attended mostly by 39 school teachers and Vava'u local government officials.

85. This consultation was followed by a site visit and consultations with the four Ha'apai outer island communities of 'O'ua, Tungua, Kotu and Mo'unga'one from 3-6 April 2017.

86. In 'Eua, a site visit was carried out by the Project Team comprised of the social and environmental consultants with a TPL Officer on 1 April 2017. The Team consulted with the TPL manager and staff and made attempts to meet with the land owner.

87. In 'O'ua, 13 community representatives including the Town Officer, church leaders, women and youth representatives, attended the consultation organized by MEIDECC, on 4 April 2017. Also, a separate meeting/interview with the caretaker of the proposed site was held by the Project Team. In Tungua, 24 community representatives including the Town Officer, men, women, and youth representatives also attended the consultation on 5 April 2017. The Team also held a separate meeting with the land owner. 13 community representatives including the Town Officer, men, women, and youth representatives was also held with the caretaker of the proposed site. In Mo'ungaone, a similar site visit was also carried out, and interviews conducted with the Town Officer, women's and men's representatives on 15-16 April 2017.

88. In August 2018, the project team with the aid of MEIDECC and TPL was tasked to update stakeholder consultations with affected land owners, or their official representatives and relevant key stakeholders during the project fact-finding mission. Consultations during this visit included both Tongatapu, Vava'u and the Ha'apai outer islands. MEIDECC will ensure that consultations would take place at a later date on Niuafo'ou and TPL for 'Eua island. This second round of consultations totaled 102 people from all project sites, comprising 50 women (49%) whereby the community again reaffirmed their support for the project.

C. Summary of Consultation Results

89. **APs:** Subject to confirmation of site locations, initial consultations in Tongatapu and outer islands indicated a willingness by most land owners to lease part of their land to the Project. In Tongatapu, during consultations held by TPL in 2014 (EIA preparation) and during the Aurecon Tonga Wind Generation Study 1 February 2015 (Feasibility Study), the communities were consulted and agreed to improve the stability of power supply and make power affordable by tapping into solar and wind renewable energy (see Appendix E).

90. In Tongatapu, concerns raised during 2014 and 2015 consultations by some respondents and those attending the consultations relates to the high cost of power tariff. However, during the initial consultations by the Safeguards Consultants with 12 Town Officers in Niutoua and surrounding areas in 29 March 2017, they have raised the question on when and how much will be the reduction in their power bill once the solar and the wind farms are operational.

91. In the outer islands of Ha'apai, land owners together with the whole community are also very keen to have a larger capacity power source to operate appliances and carpentry tools in the households in addition to three light bulbs in each household. Also, potential income from the land lease will provide much-needed income for the family. Moreover, project communities are also interested in making their power bills more affordable as a result of the government's investment in these renewable energy sources. No concerns were raised by the land owners (APs), or their representatives, during their meeting with the Project Team ('O'ua, Tungua, Kotu and Mo'unga'one). However, this will be further confirmed during detailed design.

92. **Women and Youth:** Women and youth were informed of the project scope during the Team's site visit. Initial consultation with women and youth was carried during this early design stage to ensure awareness and common understanding of the project concept. Overall, women participants, particularly in the outer islands, were vocal about the need to expand their power source and the need to maintain these facilities and pay a monthly fee. Concerns regarding the low capacity and the broken-down condition of the SHS were raised during the consultations in the Ha'apai outer islands. Some had also raised the ability to pay by the community of the current solar power tariff of TOP 13 monthly for maintenance ('O'ua and Tungua) and the limited capacity of the SHS to lighting bulbs only and no appliances as well as the broken-down state of some SHS in the community (Kotu).

93. **Government Representative:** The Team met with the Head of the Women's Department (and Acting CEO) under the Ministry of Internal Affairs about the project. She was supportive

of expanding the solar power in the outer islands to mini-grids but also suggested to ensure that households could still keep the SHS to have an option to opt out from the mini-grid if they could not afford it. This request has been forwarded to MEIDECC and will be an input into the project design once project funding has been confirmed.

94. These consultations were again revisited in August 2018 by the project team. The minutes and list of people met are in Appendix E. In total, 102 people from all project sites, comprising 50 women (49%) were consulted and the objective of consultations comprised the following:

(i) ENTURA and MEIDECC to present the scope of project works for all project sites. (ii) Introduce potential institutional setup for TREP mini-grids in particular on Ha'apai outer islands and discuss new institutional setup as well as anticipated tariff [expected roles and responsibilities of TPL/MEIDECC/Labor/Internal Affairs, Private Sector and Community].

(iii) Discuss status of existing solar home systems, solar freezer systems and solar street light systems in the Ha'apai outer islands which will eventually be relocated to other MEIDECC project sites.

(iv) Ensure discussion of their potential concerns at this stage and obtain recommendations, during these meetings for all project sites.

(v) Procedures for grievance redress will also be discussed with the community and the affected land owners.

95. In addition, both IAs are to conduct separate meetings with affected land owners and the Ministry of Lands to:

(i) Ensure the boundaries of each affected allotment be correctly marked and recorded,

(ii) Inform affected land owners about the policies and procedures regarding entitlements for improvements on the land to be leased by the project, if applicable,

(iii) Inform the land owners when and how compensation, if applicable, for affected assets including land, trees or crops will be compensated or replaced, and

(iv) Consult property valuer at Ministry of Lands on land compensation and proper land acquisition procedures.

C. Disclosure of Resettlement Plan

96. TPL and MEIDECC will disclose the content of the draft RP particularly the entitlement and timetable during individual meetings with land owners or their representatives following confirmation of funding. The draft and final RP will also be disclosed on the ADB website upon submission by TPL and MEIDECC to ADB once project funding has been confirmed.

D. Arrangements for Consultation during Updating and Implementing RP

97. TPL and MEIDECC will arrange further consultations with affected land owners, or their official representatives once project funding is confirmed. Separate meetings will be conducted with affected land owners and other relevant stakeholders to ensure discussion of their potential concerns at that stage. TPL and MEIDECC will also present the scope of project works during these meetings. In the presence of each land owner, TPL and MEIDECC will ensure the boundaries of each affected allotment be correctly marked and recorded.

98. TPL and MEIDECC will also inform affected land owners about the policies and procedures regarding entitlements for improvements on the land to be leased by the project, if applicable. Procedures for grievance redress will also be discussed with the community and the affected land owners. Also, TPL and MEIDECC will also inform the land owners when and how compensation, if applicable, for affected assets including land, trees or crops will be compensated or replaced.

99. During RP implementation, the PMU (or relevant project implementation structure) will assign a safeguards specialist to:

- Ensure that all resettlement payments and procedures have been undertaken before construction commencing;
- Require women to be with their husband when receiving payment for compensation and assistance from the PMU;
- Involve women of affected households and vulnerable groups in the locality in addressing the unanticipated social and environmental impacts during Project implementation through the Project's Gender Action Plan (GAP).

VI. Grievance Redress Mechanisms

A. General Principles

100. The grievance redress process will be disseminated to all APs during project consultations, FGD's and the census of losses. It will be contained in an Information leaflet handed to each affected land owner during the census.

B. Grievance Coordination

101. The Grievance Focal Point (GFP) will be the Town Officer in each project site, who will coordinate and address all complaints and concerns arising from the project. The contact details will be provided to all APs.

102. The GFP will be assisted and supported by the PMU social and safeguards Unit or ESU (or its equivalent unit), who will maintain a register of complaints, keep track of their status and report to the Project Steering Committee (PSC) or its equivalent. They will regularly monitor complaints received, actions taken and the status of resolution. In the initial stages, complaint forms will be distributed to the GFP to facilitate recording of complaints. The ESU will enter these complaints into a customized database, such as that which has been developed by the project team in other ADB-funded projects in Tonga. By using an electronic database, reporting on complaints and actions will be systematic, and summaries from the database can be easily incorporated into monitoring reports.

C. Grievance Procedures

103. Affected persons will be informed that they can ask any questions or discuss grievances with their community leader (the District or Town Officer) by phone or in person, or to project staff visiting the area.

104. If these questions/grievances are not answered within one week, they will need to prepare their grievance/complaint in writing using the assistance of the GFP, nearby church or school. APs will also be informed that national and international project staff will also assist them with writing a grievance if necessary.

105. Although they can lodge complaints at any level at any time, the APs will be informed that the preferred process is to send or deliver the written grievance to the District GFP. He will have one week to deliver a resolution to the AP.

106. If a satisfactory answer cannot be provided, the AP can lodge the complaint with the Project Management Unit and receive a reply within seven days.

107. Affected Persons will have the right to take the dispute to the Minster of Lands, Survey and Natural Resources (MLSNR), who will also have one week to respond.

108. If the situation is not resolvable, or they do not accept the decision, the affected person(s) may have recourse to the land court (or other relevant courts). All court costs incurred by the AP (preparation and representation) will be paid for by the project unless it can be demonstrated the action was unreasonable and the outcome mirrors the answers provided by the Minister (MLSNR).

109. During construction/implementation, a grievance register will be held at each Project site office, maintained by the site manager and monitored by the Project safeguards team. All complaints arriving at a site office are to be entered in a Register (by, date, name, contact address and reason for the complaint) that is kept at site. A duplicate copy of the entry is given to the AP for their record at the time of registering the complaint. The Register will show who was directed to deal with the complaint and the date when this was made together with the

date when the AP was informed of the decision and how the decision was conveyed to the AP.

110. The Register is then signed off and dated by the person who is responsible for the decision. The Register is to be kept at the front desk of the site office and is a public document. The duplicate copy given to the AP will also show the procedure that will be followed in assessing the complaint, together with a statement affirming the rights of the AP to make a complaint. For anybody making a complaint no costs will be charged to the AP.

111. In the event that grievances cannot be resolved at the local level, TPL and MEIDECC will hold the compensation amounts in escrow or trust account. Compensation will be paid in full upon final resolution of the case in the courts or other forum, in accordance with the entitlements of the AP.

112. **Error! Reference source not found.**6 outlines a summary of the grievance resolution p rocess.

Step	Process	Duration	
1	Displaced Person (AP)/Affected Person (AP) takes grievance to the village chief/ then with Town Officer to the PMU/TPL/MEIDECC. This could be done after initial notification of grievance at Contractor's site office, or through the DSC (Resident Engineer)		
2	PMU/TPL/MEIDECC reviews issue, and in consultation with contractor (if appropriate), then records a solution to the problem.	1 week	
3	TPL/MEIDECC reports back to AP and gets clearance from complainant.	1 week	
If unre	solved		
4	AP take grievance to relevant government agency for resolution (Minister of MLSNR)	Decision within 1 week	
5	Minister consults with other Ministers, TPL/MEIDECC and PMU in the resolution of complaints.	1 weeks	
6	AP is informed by the Minister through PMU/TPL/MEIDECC	1 week	
If unre	solved or if at any stage and AP is not satisfied wit	th progress	
AP can	take the matter to appropriate court.	As per judicial system	
	urt hears the case and makes a final decision that is on all parties.	The court hears the case and makes a final decision that is binding on all parties.	

Table 6. Grievance Resolution Process

V. LEGAL FRAMEWORK

A. Land Tenure in Tonga

113. To place Tongan land acquisition policy in context, it is important to understand its land tenure system. Under the Constitution of Tonga (1875), all land in the Kingdom belongs, in principle, to the Crown and is classified as (i) King's land, (ii) hereditary estates of members of the Royal Family, (iii) ancestral estates of Nobles, and (iv) Government land. The latter two categories are subdivided into allotments for the rest of the people of Tonga. In theory, every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes. In practice, there is now little land available for distribution, particularly in the Nuku'alofa area.

114. When the registered owner of an allotment dies, the allotment is inherited by the eldest son or another male heir. Women can only lease land or hold land in trust for their male heirs. Sale of land is prohibited, but land may be leased. Leases cannot be sold, except by the land owner. Both leases and allotments may be used to secure bank loans. Given the fact that there is already limited land available, especially for the allocation of town lots to all eligible males, this future increase in demand will put further pressure on the existing system of land allocation.

B. Relevant Provisions for Involuntary Resettlement in Tonga

115. There are no laws or legislations in Tonga that specifically address matters related to involuntary resettlement. Rather, land acquisition is governed by the following laws:

- (i) Constitution of Tonga as revised 1988 and 1990
- (ii) Government Act 1988
- (iii) The Land Act 1988 revised edition (amended in 1991 & 1997)

116. Specifically, the lease process and procedures stated in this project are based under Land Lease Act 1988 revised edition. Detailed procedures are based on the Ministry of Land's internal policies and procedures that were formulated to ensure that all land transactions are in line with the governing Act.

117. Collectively, these regulations provide a fundamental basis for acquiring land for this Project and for compensating land owners and users according to the registered use of the land. The Land (Amendment) Act (No.2) 1991 provides for the compulsory grant of easements to the Crown. The easement option is open for TPL and MEIDECC's purposes. However, TPL and MEIDECC have indicated they intend to lease all required lands.

118. A third party verification is not a requirement by the MLSNR. MLSNR process lease applications when prescribed forms are completed, signed and delivered to the Ministry. Once the landholder signs the form, the assumption is that he understood the lease terms prior to signing. (However, under the ADB SPS 2009, a third party verification will be required under the project.)

119. In summary, the King or the Minister of Lands can compel any holder of land to grant an easement to the Crown. If land, crops or premises are taken, the Government shall pay fair value or an amount determined annually by Government. People have the right to relinquish land for public purposes for no compensation voluntarily. A brief descprition of legislation about compensation and the provision of land is provided in the later section of this report.

C. ADB's Policy on Involuntary Resettlement

120. The ADB policy on involuntary resettlement is detailed as "Safeguard 2" in the ADB Safeguard Policy Statement (SPS) 2009. It emphasizes ADB's efforts to assist developing

member countries in pursuing sustainable and inclusive economic growth. Also, ADB is committed to ensuring the social and environmental sustainability of the projects it supports.

121. In this context, the goal of the safeguards is to promote the sustainability of project outcomes by protecting people from projects' potential adverse impacts.

122. The objectives of ADB's social safeguards are to:

- (i) avoid adverse impacts of projects on people, where possible;
- (ii) minimize, mitigate, and compensate for adverse project impacts on affected people when avoidance is not possible; and
- (iii) Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage social risks.

123. The key principles of ADB's Involuntary Resettlement Policy and procedures relevant to the LAR are detailed in the later section of this report.

D. Comparison of Tonga and ADB IR Laws, Regulations and Procedures

124. The main variation between Tonga laws/regulation and ADB Safeguards policy are outlined below. Any key differences have been resolved of ADB policy, particularly in areas where practices are less subject to independent oversight.

125. Comparison of the Tonga LAR laws with the ADB requirements on involuntary resettlement under the Safeguard Policy Statement indicates that key elements of the ADB Policy are present in Tonga laws - particularly those related to valuation of immovable property. The ADB's principle of avoidance or minimization of resettlement is also reflected in Tongan Legislation.

126. The key policy difference is about providing compensation to DPs without lease/title to land and structures and provision of proactive livelihood restoration and improvement activities for DPs. The DPs under this Project are land owners of affected allotments; however, this is not expected to be an issue as they are supportive of leasing their lands to the project.

ADB SPS Requirements on Involuntary Resettlement	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps between ADB SPS and Tonga Laws	Gap-Filling Measures
Avoid involuntary resettler Minimize involuntary res project and design alternat		Gap.	ADB Policy will be followed.
Enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre- project levels. Improve the standards of living of the displaced poor and other vulnerable groups.	Tongan law does not provide for compensation to improve livelihoods or housing, or specify the type or timing of compensation payable for assets.	Gap.	ADB Policy will be followed.
Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender	Not specified in Tongan law.	Gap.	ADB Policy will be followed.

Policy Gap Analysis between ADB SPS and Tonga Laws on Land Acquisition and Resettlement

ADB SPS Requirements	Tonga Laws on Land Acquisition /	Equivalence	Gap-Filling Measures
on Involuntary Resettlement	Resettlement	or Gaps between ADB SPS and	
analysis, specifically		Tonga Laws	
related to resettlement impacts and risks.			
Carry out meaningful consultations with APs, host communities, and concerned NGOs. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations.	No specific policy in Tongan Law. However, customary practice is to consult with all affected and potentially affected people. APs are informed and consulted on the project, plans, and the actions to be taken particularly in respect to compensation entitlements and options. There are no specific provisions for vulnerable people in Tongan low. However such practice is embedded in the customs and traditions of Tonga and the land tenure system. No specific policy in Tongan Law distinguishing between rich and poor; all citizens are treated equally.	Tongan practice is in line with ADB policy.	Customary practice will be followed, with additional inclusion of specific ADB requirements.
Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.	Grievance redress mechanisms are approved by Tonga on a project-by- project basis. Given traditional and customary processes of communication, community structures and leadership, procedures are often well communicated. However, these same societal structures can allow for power differentials to occur.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.	Land Act, Section 141 provides powers to the Minister of Lands in case of loss of land for compensation in the form of land and/or cash. Land Act, Section 141 (2) provides for the payment of cash compensation for loss of structures. Tongan Land law provides for compensation to legal land users for crop/tree losses at rates determined by the government and established by Ministry of Agriculture. In practice, compensation is generally paid within a timeframe prior to the action of the civil works.	Tongan policy complies with ADB policy.	None required.
Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is	No specific policy in Tongan Law. Tongan customs and traditions provide support for certain groups.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.

relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required. Improve the standards of groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing. Develop procedures in a Not specified in Tongan Law. Gap. ADB Policy will be followed affordable access to adequate housing.	
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groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.	
to at least national There is no law relating to this provision. minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.	
minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.	
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provide them with appropriate income sources and legal and affordable access to adequate housing.	
appropriate income sources and legal and affordable access to adequate housing.	
sources and legal and affordable access to adequate housing.	
adequate housing.	
transparent, consistent,	1.
and equitable manner if	
land acquisition is through	
negotiated settlement to	
ensure that those people	
who enter into negotiated settlements will maintain	
the same or better income	
and livelihood status.	
Ensure that displaced Land users with no legal registration Gap. ADB Policy will be followed	l.
persons without titles to have no rights.	
land or any recognizable legal rights to land are	
eligible for resettlement	
assistance and	
compensation for	
loss of non-land assets	
Prepare a resettlement Not specified in Tongan Law. Gap. ADB Policy will be followed	1.
plan elaborating on displaced persons'	
entitlements, the income	
and	
livelihood restoration	
strategy, institutional	
arrangements, monitoring and reporting framework,	
budget, and time-bound	
implementation schedule.	
Disclose a draft Land Act, Section 142 requires the Tongan Tongan practice will be use	
resettlement plan, Minister of Lands to notify affected practice is in the project in compliance	
including documentation persons of Government's intention to line with ADB ADB policy. of the consultation acquire land at least 30 days prior to policy.	

ADB SPS Requirements on Involuntary	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps	Gap-Filling Measures
Resettlement		between ADB SPS and	
		Tonga Laws	
process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other	resumption. In practice, APs are informed and consulted on the project, plans, and the actions to be taken particularly in respect to compensation entitlements and options.		
stakeholders. Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement implementing the involuntary resettlement component of the project as a stand-alone operation.	Note specified in Tongan Law.	Gap.	ADB Policy will be followed.
Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.	No specific policy in Tongan Law. In practice, each involuntary resettlement is assessed according to the development project. Compensation is generally paid within a timeframe prior to the action of the civil works.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.	Not specified in Tongan Law.	Gap.	ADB Policy will be followed.

E. Principles and Policies of the Project

127. The following principles for the compensation of displaced people or families affected by the Project will be followed, and communicated to all stakeholders:

- (i) No displacement or civil works will take place prior to full compensation.
- (ii) The cut-off date for identifying affected lands, families and individuals will be identified at the conclusion of the detailed measurement survey (DMS). This date will be when Project scoping will take place and when any affected people within the proposed project site will be informed.
- (iii) Project planning will include avoidance of the need for structural acquisition and minimize agricultural land acquisition.
- (iv) Where there is a permanent acquisition of land, identification, compensation and assistance will be provided before any construction commencing.

- (v) All displaced persons will receive compensation for non-land assets, even if they are without a lease or formal recognition.
- (vi) All construction on agricultural land will be timed to avoid any impacts on the income and activities of adjoining land parcels. If impacts do occur, compensation will be provided to affected land and crops.
- (vii) Detailed seminars and consultations will be available for all affected people to keep them informed of the process. Representatives of affected households will be involved in valuation meetings following detailed design.
- (viii) A defined grievance procedure will be established. When a land owner or user does not agree with a decision regarding compensation or change of the land use (lease), it may not be exercised before the dispute is resolved judicially. Also, any person who feels that they are in any way worse off can take their grievance to the highest level, at the cost of the project.
- (ix) There are no APs who face significant impacts (>10% of their land being leased and physically displaced from housing).
- (x) Vulnerable groups, including female-headed households, the poor, disabled, or families with significant numbers of elderly or disabled members will receive additional support, assistance, and compensation to ensure that they are not severely affected.
- (xi) DPs may use and exercise their rights to a land plot and make necessary expenditures in compliance with its purpose after notification of acquisition for public needs until compensation is agreed. However, there will be no entitlement to additional compensation based on these improvements if made after the cut-off date.
- (xii) If a land plot becomes unviable due to acquisition, then the whole land plot will be compensated.

VI. ENTITLEMENTS, ASSISTANCE, AND BENEFITS

A. Entitlements to Compensation

128. All 5 private land owners as APs, are each eligible for compensation under the RP due to the proposed leasing of the land for construction of solar farms. Also, the allotment belonging to His Majesty are also expected to be compensated under this Project. An allotment owned by the government (Niufo'ou) will not require compensation as it is government-owned (pending final confirmation). Its land ownership status will be confirmed during detailed design.

B. Calculation of Compensation

1. Land

129. Compensation for the land will be offered either as a lump sum, annual payment or any variation depending on the preference of the land owners and agreement during negotiation. The leases will be undertaken between registered allotment owners and TPL and MEIDECC as negotiated and approved by Cabinet. The compensation sum initially estimated in this RP is based on the recent land transaction between TPL and land owners of the JICA-funded wind farm at Niutoua approved by the Cabinet on 5 May 2017²⁰ of about T\$ 16,667 per acre calculated on 20 years as the maximum period TPL and MEIDECC could lease the land. The TPL and MEIDECC will pay 50% of the lease fee before Cabinet approval of the agreed amount, and the remaining amount will be paid after approval or as agreed with the land owners. The transaction costs and registration fees will be borne by the project.

130. A total of 2.5 hectares of land is required for the Project, from 5 individual land owners, His Majesty, and the government land. Estimated total compensation costs during the three-year implementation period of about T\$110,000 (USD 47,185).

2. Food Gardens and Trees

131. Where a solar farm will be constructed, about four of the seven affected allotments is estimated to have crops and trees to compensate. This will be determined during detailed design. The Ministry of Agriculture & Fisheries (MAF) uses a standard compensation table determined by Government. This uses average yields and pre-determined prices. ADB guidelines indicate that prices should be determined in the market and assume that the farmer sells at the peak price.

3. Other Compensation

132. The proposed sub-project is expected not to result in any other losses to structures, residences, or community assets (land or non-land). In instances where this happens, in the cases of crops and trees, the project will utilize the schedule of payments under the Ministry of Agriculture; in the cases of structures or residences, this will be determined jointly by both the PMU and the affected land owner based on replacement cost of the said structure, residence or community assets. This will, however, be confirmed during the detailed design.

²⁰ Cabinet decision numbers for the 6 different leases under the JICA-funded wind farm project:

CD.450 - on Government land (Tu'ipulotu Afiulo's reverted land)

CD.451 - Tau'alupe Oko's land

CD.452 - Totoa Pohahau's land

CD.453 - government land (Seini Liku's reverted land)

CD.454 - government land (Neomai Kengike's reverted land - 8A)

CD.455 - Latu Kengike's land

C. The Valuation Process

133. An initial asset valuation will be undertaken by the Project team. Before construction works commencing, the PMU ESU team (or its equivalent in PMU) will verify and certify the values using current Government and market rates. APs will be involved in the review and revaluation. If the AP agrees with the valuation, then this will be used as the basis for negotiation. The detailed measurement survey will be used as the basis for calculation. If the AP disagrees with the valuation, as the current practice in land valuation in Tonga, the project will allow them to utilize an independent valuer that will be paid for by the Project.

D. Entitlements Matrix

Table outlines the relevant entitlements for the subproject.

Table 7: Entitlement Matrix						
Type of Loss	Specification	Affected People	Compensation Entitlements			
Permanent loss of rural or townland	All land losses independent of impact severity	Land Owners	 Long term sub-lease based on the market value of the affected land. Or, once-off compensation equivalent to the 20-year lease, depending on the land owner's preference. Provision of all legal and other expenses associated with the lease. Compensation will be paid for unaffected portions of plots if they become unviable or have their usage rights altered after impact occurs. Payment for the affected assets/improvements on the land to be leased. 			
Economic and physical displacement	All land and non-land losses	Vulnerable Groups	 ADB SPS 2009 will be enforced in that assistance will be provided to vulnerable APs/DPs, if any identified, to ensure that living standards the same as, or wherever possible better than, pre-project levels. 			
Permanent loss of rural or town land	All land losses independent of impact severity	Land Owners	Once off compensation payment equivalent to the 20-year lease payment to registered land owner			
Standing Crops	Crops affected	Land Users	Cash compensation equivalent to the gross income from the crop calculated at the maximum annual market value of the total annual produce from affected land or the formal government rate – whichever is greater			
Trees	Trees affected	Land Users	 Fruit Trees - The full cost of seedling, the cost of preparation of a garden and lost profit at annual income (using maximum annual market values) multiplied by the number of years of fruiting remaining or the regular government rate – whichever is greater. Timber Trees - The full cost of seedling, the cost of preparation of a garden and maximum market value of maximum timber production per tree (at full maturity) or the regular government rate – whichever is greater. 			

VII. RESETTLEMENT BUDGET AND FINANCING PLAN

B. Responsibilities

134. To ensure that sufficient funds are available for LAR tasks, the Ministry of Finance (via the PMU) will allocate 100% of the cost of compensation at replacement cost and other expected costs estimated in this RP plus contingencies before RP implementation. As the IA, the PMU (or its equivalent) will be responsible for timely allocating the funds to implement the RP. Allocations will be reviewed immediately before land acquisition.

B. Budget Summary

135. The estimated budget for LAR activities under this RP is shown in Table 8 below as Sub Total (B). It indicates a total budget of T\$110,000 (USD 475,185) to implement the RP.

S.N.	Items	Cost (TOP)	Cost (USD)
Α	Compensation		
	Land lease for 61Ha		
1	(TOP 16,667 ²¹ per acre x 60.3)	1.05M	430,895
	Assistance to vulnerable groups, if		21,459
2	required	50,000	
	Sub-Total (A)	1.10M	452,354
в	Implementation		
	Land Survey (DMS)		
	Tongatapu – TOP 20,000		
	'Eua – 5,000		
	Vava'u- 5,000		
	Ha'apai – 5,00 x4 = 20,000		
1	Niuafo'ou- 10,000	60,000	25,725
2	Consultations	50,000	21,460
	Sub Total (B)	110,000	47,185
	A + B Total	1,210,000	499,539
	Contingency (10%)	121,000	49,953
	TOTAL USD	1,331,000	549,492

Table 8: Estimated Land Acquisition and Compensation Costs

DMS = detailed measurement survey, Ha = hectare,

Source: Feasibility Study Consultants

²¹ Based on recent cost of acquiring Noutua site for TOP 50,000 for 3 acres each allotment

VIII. INSTITUTIONAL ARRANGEMENTS

The institutional arrangement discussed below will be confirmed during detailed design.

A. Project Management Unit

136. A Project Management Unit (or its equivalent) will have the overall responsibility for all aspects of the project implementation. The Project Management Unit (PMU) within comprised of TPL and MEIDECC representatives will be responsible for the day-to-day management of the Project including cross-agency coordination and via the Environment and Social Unit (ESU) for RP implementation and monitoring the compensation and disbursement.

137. An Environment and Social Unit (ESU) will be formed within the PMU to plan, implement, and coordinate land acquisition, resettleme

138. nt, and environmental activities of loan effectiveness. The team will be staffed by a social safeguards officer²² and an environmental specialist officer. The Crown Law Office will provide overall guidance on Tonga's requirements and legal issues relating to land acquisition. Although PMU staff will be funded through counterpart funding, the operations of the Environment and Social Unit will be financed through a portion of the PMU support funds allocated through the grant for the duration of project implementation.

C. Design & Construct Contractor (DCC)

139. The Project will have its detailed design and construction contracted out. The PMU will be in charge of elaborating the design and construction documents for the project and tendering for the DCC. During design, the DCC will collaborate and work closely with the PMU/ Environment and Social Unit to:

- (i) look for measures and alternatives to avoid and minimize land acquisition and resettlement impacts;
- (ii) assemble all documents required for compensation;
- (iii) carry out topographic surveys of land to be leased or replacement lands if applicable;
- (iv) elaborate layouts for alternate land;
- (v) conduct land marking and pegging of the land assigned for temporary use and permanent occupation of acquired land.

D. District and/or Town Officer

140. District and/or Town Officer will play a facilitation role throughout implementation. They will work in close collaboration with the Environment and Social Unit and the contractor to:

- i) Become the Grievance Focal Point (GFP) for their respective site;
- ii) Assist consultation during implementation;
- iii) Identify land losses incurred by land owners and agricultural losses;
- iv) Together with DPs, be involved in the detailed monitoring survey and subsequent valuation discussions; and
- v) Assist with implementation of compensation payments.

141. Table 9 summarizes the roles of relevant institutions during the implementation of the RP.

²² Provided under the GAP

Activities	Responsible Agency
A. Preparation and Updating of RP	
a. Project disclosure and public consultation	PMU ESU
b. Tendering and award of Design & Construct Contractors (DCC)	PMU
c.Survey and marking of subproject sites	PMU/DCC
d. Final Loss assessment	PMU ESU
e. Final Survey and establishment of market unit prices	PMU with Ministry Agriculture
f. Consultation and agreement of compensation	PMU ESU,
g. Update and approval of Final RP	ADB, DoEnv
 Disclosure to the DPs and the public by IA and posting on ADB website 	PMU & ADB
B. RP Implementation	
i. Approval and release of funds for compensation	EA and PMU
j. Verification of APs	PMU ESU
k.Monitoring	PMU ESU
I. Grievance and redress	District & Town Officer, PMU, Minister Lands
m. Preparation of leases	MLSNR
n. Payment of compensation	PMU
 Acquisition of affected lands 	MLSNR/ TPL & MEIDECC
p. Submit compliance documents to ADB	PMU and EA
 q. Validate compliance of RP implementation 	ADB and EA
C. Construction Stage	
r. Confirm "No Objection" for the beginning of civil works	ADB
s.Subproject construction	DCC

Table 9: Institutions Involved in Resettlement Implementation

ADB = Asian Development Bank, DCC = Design & Construct Contractors, DoEnv = Department of Environment, ESU = Environment & Social Unit, MLSNR = Ministry of Lands, Survey & Natural Resources, MEIDECC, Ministry for Meteorology, Energy Information, Disaster Management, Environment, Climate Change and Communications, PMU = project management unit, TPL = Tonga Power Limited

IX. IMPLEMENTATION SCHEDULE

Responsibilities to Implement RP

A. Pre-Resettlement Activities

142. The PMU will undertake a detailed verification and update of the RP once the project details are finalized during detailed design. The changes to the RP will be verified with the PMU and require approval from the EA and ADB, with full disclosure before commencement of any LAR activities.

143. The final RP includes the full details of all land and resettlement arrangements, including verification by the APs. This requires approval by ADB.

144. The DCC in charge of finalizing the design and undertaking Project construction will assist the PMU to:

- Update the RP based on the detailed measurement survey and inventory of losses and disclose to the project communities, and upload to government and ADB websites;
- (ii) Assemble all Cabinet-approved land lease documents;
- (iii) Carry out topographic surveys of the leased land and compensation;
- (iv) Prepare detailed layouts indicating the location of the worksites and the permanent infrastructures and the perimeter of the required areas; and
- (v) Conduct the land marking and the pegging of the lands assigned for temporary use and permanent occupation and determining actual size of lands to be leased by the project.

B. Resettlement Implementation Phase

145. Disbursement of cash will follow the approval of budgets for cash compensation. The Environment and Social Unit will inform the APs of the schedule of fund release. They will also advise the APs to produce acceptable legal documents about their identification for claiming the compensation. It is the main responsibility of the PMU to ensure that all the compensations and entitlements have been paid to and settled with APs before construction.

146. The APs will be paid and all RP compensation-related activities completed before signing a document signifying their satisfaction with and receipt of the compensation package. The PMU Environment and Social Unit will guide the PMU in preparing lease/ contract documents, including Ministry of Land supplied forms, to be used for the settlement of obligation in the lease of affected land.

147. All resettlement activities will be completed before clearing the construction sites. The PMU will initiate the following steps in releasing the cash compensation and entitlements to DPs:

- (i) The Environment and Social Unit (ESU) will advise the APs of the fund release schedules including required legal documents for their identification in claiming due compensation and entitlements.
- (ii) The ESU will facilitate for receipt of the resettlement compensation from the Ministry of Finance and disburse it directly to APs on presentation of identification.
- (iii) The ESU will require the APs to sign a document indicating the receipt of their compensation and entitlements.
- (iv) The ESU will arrange for new leases to be issued where relevant.
- (v) The ESU will require the APs to sign a document indicating completion of their LAR activities, stating that they have no further claims.
- (vi) This will be summarized by the PMU and forwarded to ADB as part of no-objections for the commencement of construction.

148. A compensation completion report, cleared by ADB, will signal the beginning of civil works. An updated RP is required prior to the start of any compensation.

149. The implementation schedule below outlines the sequence of activities. Some of these steps will overlap in their timing, and some will be repeated throughout the project schedule.

S.N.	Activities	Estimated Time	In-Charge
1	Confirmation of land requirement and initial identification of land owner through Town Officer confirmation	16 Weeks (June-August 2018)	TPL and MEIDECC/ Consultants/PMU
2	Note: If unregistered land or land owner not identified, the Ministry of Lands, Survey and Natural Resources (MLSNR), to conduct a land survey upon the request of project proponent.	1-2 Weeks	
3	Contact land owner (through the Town Officer)	3 days	TPL and MEIDECC/ Consultants/PMU
4	Meet with land owner to confirm initial agreement to lease the land	1 week	As above
5	Verify land ownership status, government land valuation, and market valuation	2 weeks	Ministry of Lands Private Valuer
6	Agree proposed compensation amount within TPL and MEIDECC before negotiation with land owner	1 week	TPL/ MEIDECC Committee
7	Organize follow-up meeting with land owner, or representative, to negotiate price	2 weeks	TPL/ MEIDECC Consultants/PMU
8	Allow time for land owner to consult with family and own land valuer	1 week	Land owner
9	Prepare government lease form and compensation agreement form	1 week	Ministry of Lands
10	Facilitate signing and payment of lease form and compensation agreement (50% payment or as per agreement) with land owner(s) with third party verification (TPV)	1 day	TPL/ MEIDECC Consultants/PMU
11	Compile forms and return to MLSNR for Minister's endorsement to get to Cabinet approval	1 week	TPL/ MEIDECC Consultants/PMU
12	Submit for Cabinet approval	1-2 weeks	MLSNR
13	Payment (final 50% or as per agreement with land owners)	1 day	TPL/ MEIDECC Consultants/PMU
14	Collect Deed of Lease from MLSNR	One week (if priority)	TPL/ MEIDECC Consultants/PMU
15	Final land survey and submission to MLNSR for filing	1 week	TPL/ MEIDECC MLSNR
16	Proponent submits the Deed of Lease and compensation completion report to ADB and who else?	1 week	TPL/ MEIDECC Consultants/PMU

 Table 10: Implementation Schedule for Each Proposed Sites

S.N.	Activities	Estimated Time	In-Charge
	Estimate Time Frame	7 Months	
17	Commencement of civil works		

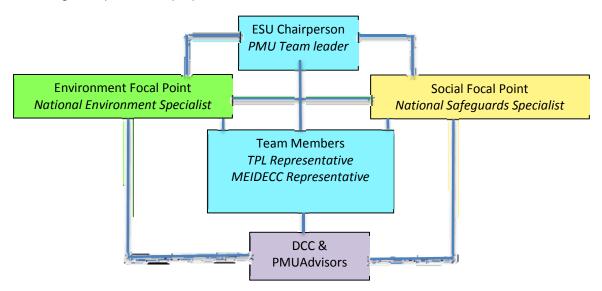
Table 10: Implementation Schedule for Each Proposed Sites

X. MONITORING AND REPORTING

150. The primary objective of monitoring is to identify as early as possible the activities achieved and the cause(s) of constraints so that the arrangements in the RP implementation can be adjusted. Also, to get Affected Person's feedback on the RP implementation and corrective actions, if required. Monitoring is essential because RP implementation is often the critical path for any project where civil works are involved, due to issues of land acquisition, compensation, and resettlement that may cause a delay in civil works. The early identification of the causes of delay will enable the PMU (with support from the PIA consultants), to prepare the mitigating measures during RP implementation.

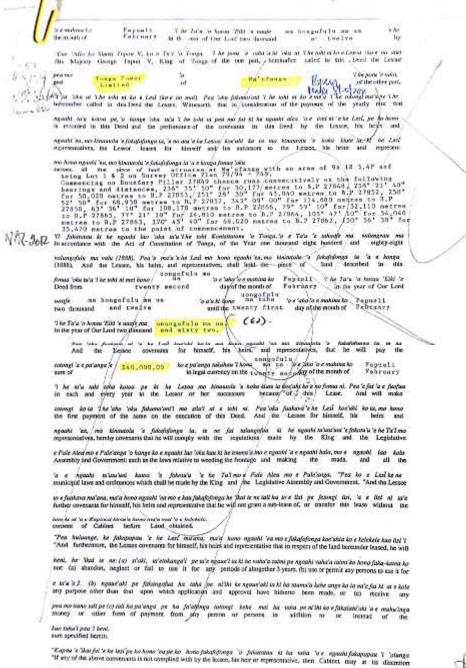
151. The PMU will establish a safeguards team; the Environment Social Unit (ESU). The ESU will comprise of representatives from the Project Implementation Assistance Consultants (PIAC), along with representatives from TPL and MEIDECC. All LAR tasks will be monitored internally, and progress reported to the government and ADB. Monitoring will be carried out by the PMU Environment and Social Unit, with the assistance of the safeguard specialist(s) and the District/Town officer. Process indicators will relate to implementation outputs and deliverables. All data collected will be disaggregated by gender. These will be collected directly from the field and will be reported monthly to the PMU to assess the RP implementation progress and adjust the work plan if necessary. These reports will be consolidated in the supervision reports for ADB and submitted semi-annually.

152. Upon the completion of civil works, the PMU will prepare a post-RP implementation evaluation report that will assess both the permanent land acquisition and other impacts of the Project focusing on the conditions of APs especially those who were identified as vulnerable.



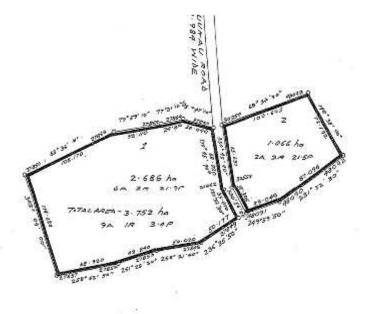
187. Figure 7 provides a proposed structure for the ESU.

APPENDIX A - TPL LEASE RECORD



'e fakangana lena 'a e llei 'i ka loto ki at 'a e Rapinen." terminan tha lease "

Daalaalaana



Scole 1:2000

SIPINGA FIRA 7

FORM NO. 7

TOHI 'O E TOE FAKAPAPAU KE LISI FORM OF ADDITIONAL COVENANT IN TOWN LEASES

Peer blax fakapapan keni 's he Lesi' pe ito e kan fattati nata, pe kar pair no hisantahi 'sha haka ani 's biai ke kanps pe And the Lesson for himself, his executors, administrators and anigus doli hereby covenant that the said Lesson will not at any time

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manumant's e he Less' are fakapapaan ko eni ka ne langa pe se nefeinya ke langa ta falo kao moti avanta matu hafalangafaa Lande having first boen obtained, and if the Lesse in branch of the said covenant shall even ar muse to be encend any such building with

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fale hold pear's enough 's he Leef 's a spatial assume 's a space hold, or cause to be removed such buildings at the expense of the Lesses.

SIPINGA FIKA 18 FORM NO. 10

SIPINGA 'O E TOE FARAPAPAU ET HE LISI ROTOA PR FORM OR ADDITIONAL COVENANT TO EVERY LEASE

Pear loka fakapapan 'e he pear I he voha'ar 'o e ompo fa'abi is Anni 'oka pau he toe fakabaaban'i 'se totongt i itsi 'oka kotona And it is agreed by and between the parties hereto that the rent payable under the conditions of this lease shall

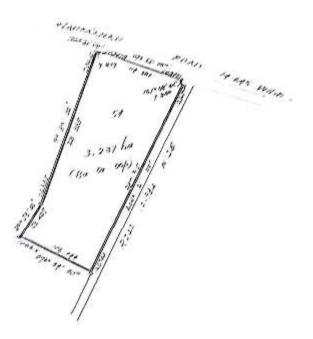
ke fad 't he ngaantu ax'aan'uni. 't he filionoi ki al 'a e ongo fa'ahi 't he 'asi 'a e ni'n 'e nime sokimha mei he 'aho na'n fai ai eni. be subject to rovision by munual agreements between die parties at the temination of each five years flom the dare

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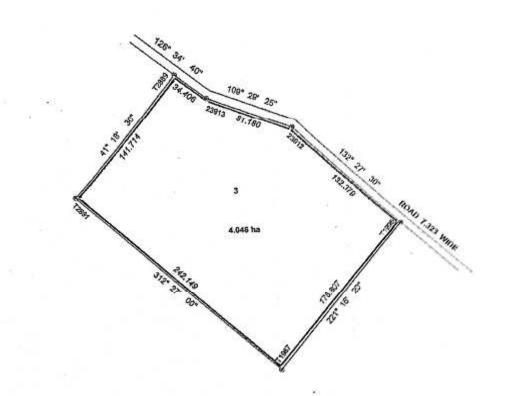
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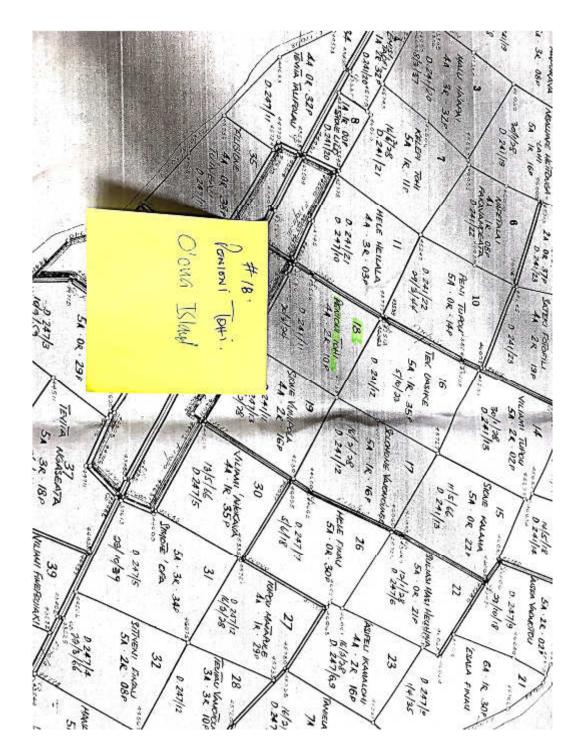
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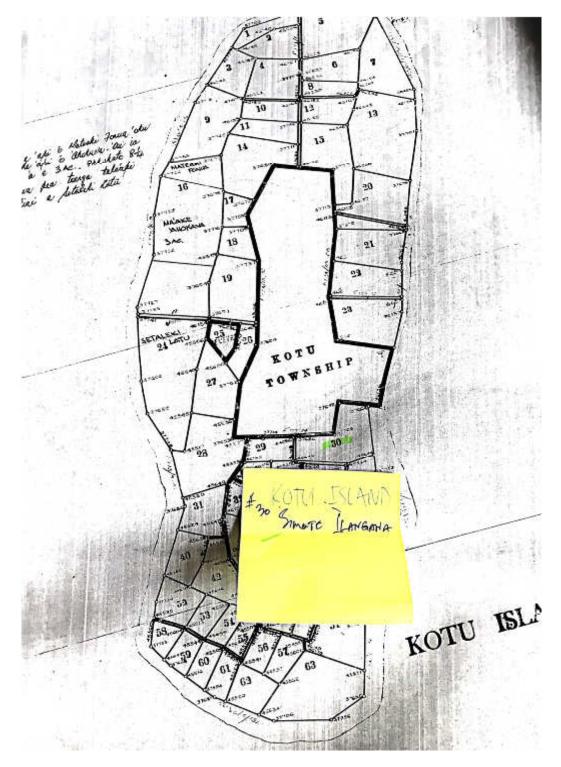


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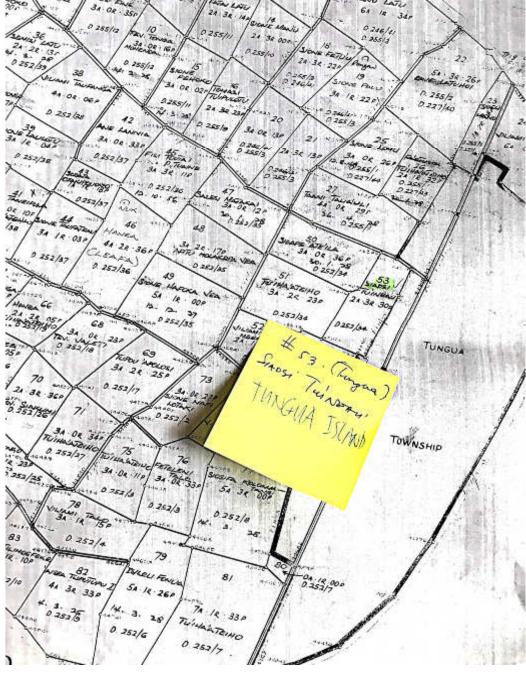
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APPENDIX B - LAND TITLES FOR PROPOSED SITES (FAHEFA, MATAFONUA, NIUTOUA, 'EUA)

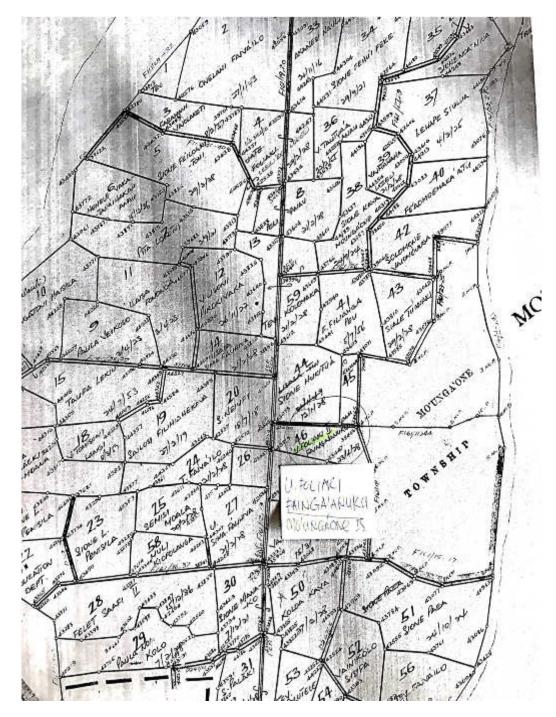


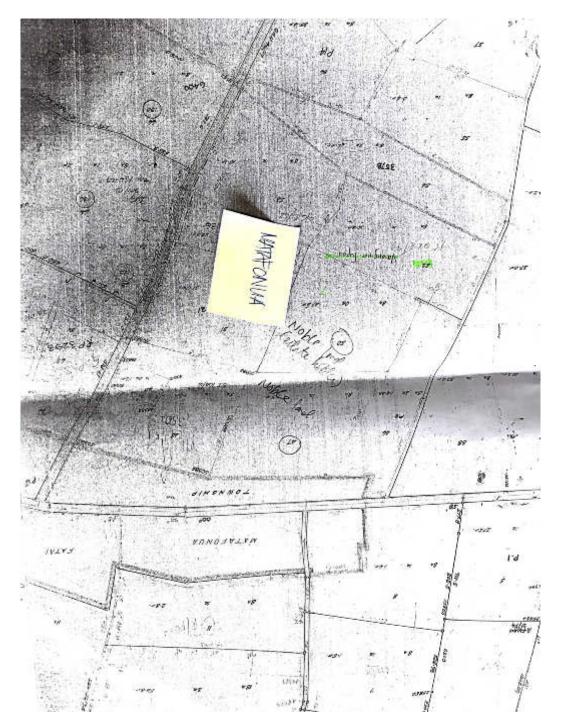


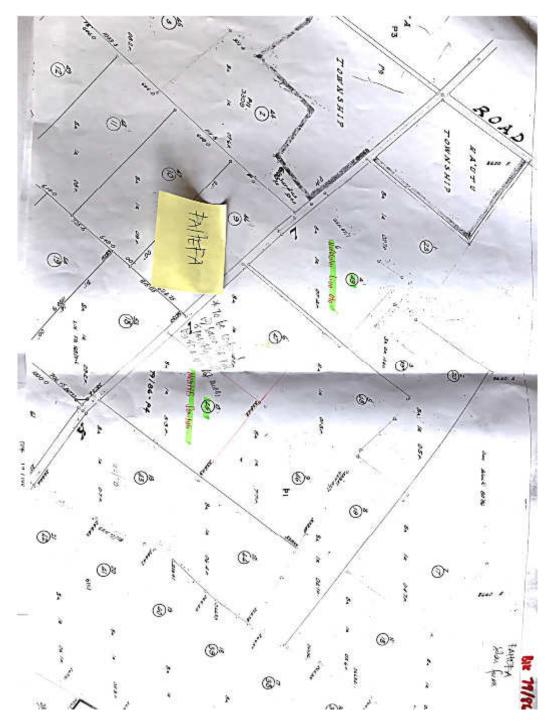


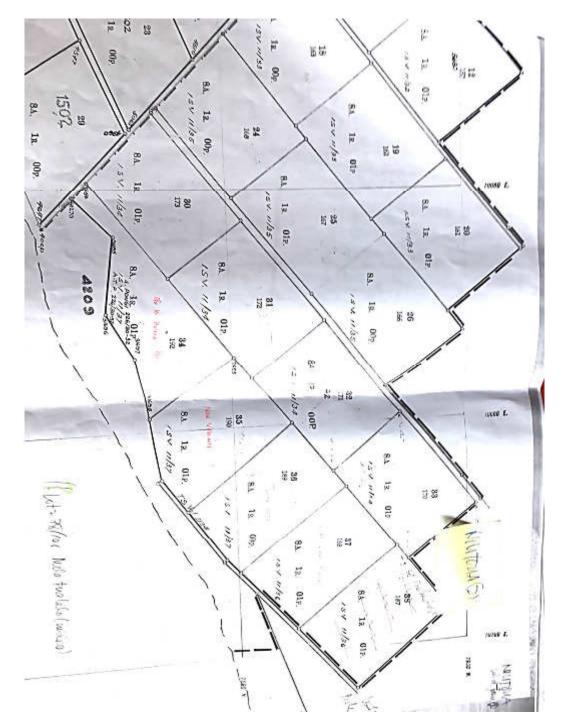
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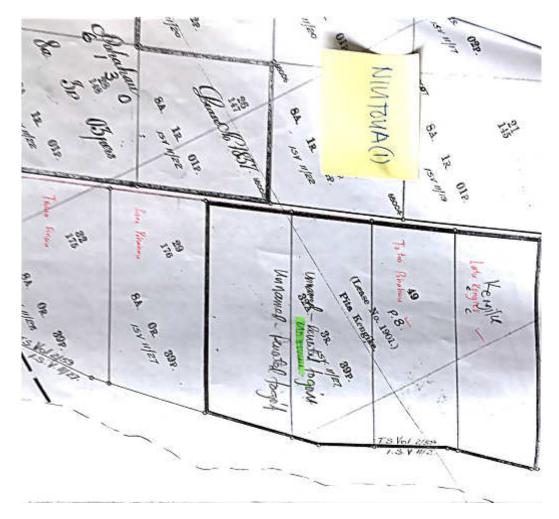
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March- April 2017					
Name	Designation	Organization/	Discussed	Contact Details	
		Village			
	28 March 2017, 1		Coore of works for each	a a h a n @ t a n a n a n a n a n t a	
1. Setitaia Pasivaka Chen	General Manager, Operations	Tonga Power Ltd	Scope of works for each TPL site; guided site visits for solar sites	schen@tongapower.to	
2. Simon Wilson	Major Projects Manager	Tonga Power Ltd	Scope of works for each TPL site	swilson@tongapower.to	
3. Murray Sheerin	Power Generation Manager	Tonga Power Ltd	Operations of Popua PV	msheerin@tongapower.to	
4. Telefoni Laume	Town Officer	Fua'amotu	Group meeting. Introduced the	77-16276	
5. Paluio Laume	Town Officer	Niutoua	renewable energy project, their concerns,	877 3361	
6. Moala Aniseko	Town Officer	Nukunuku	and recommendations relevant to the project.	77-19320	
7. Samuela Kotu	Town Officer	Fo'ui	Main question asked of the team was when is	8745747	
8. Timote Eteak'i	Town Officer	Houma	their power bill will be reduced? TPL replied		
9. Usaia Fifita	Town Officer	Tofoa	that the solar is helping estabilise the power	77-16752	
10. Malolo Tupou	Town Officer	Puke	supply and reducing power cost due to solar	77-66344	
11. ?	Town Officer		power generation is still minimal.		
12. ?	Town Officer				
13.	Governor of Vava'u		Recommended His Majesty's land in front of the current solar farm for the storage site instead of the other site with a number of small landholders.		
	sday, 29 March				
14. Lucy Fa'nunu	Officer-in- Charge	MEIDECC	Introduced the RE Team to the workshop organized by MEIDECC participants		
15. Mele Finau	Environment Offic	MEIDECC	Interviewed	finaumele@gmail.com	
16. Pipena Liu	Teacher at Tafisi	Government Primary School	Interviewed		
17. Siunipa Tiepa'aua	Teacher at Talihau		Interviewed		
	parate attendance	e list for Vavau' me	eeting organized by MEIDE	CC for the REP Team	
E'ua Siono	Operations	וחד	Interviewed		
Sione Taulaki	Operations Manager	TPL	Interviewed and isingd	vongooio@tonggooto	
Villiame Ongosia	Project Manager	Outer Island Renewable Energy Project (OIREP) Phase 3	Interviewed and joined the site visit	vongosia@tongapower.to	

List of People Met

COMMUNITY CONSULTATION – VAVA'U ISLAND Attendance List

Thursday, 30th March 2017

No.	Villages/Schools/Organisation	Names	Phone No.
1	GPS Tu'anuku	Tevita.S.Kiteau	7574346
2	GPS Tu'anekivale	Sione Vea	7746886
3	GPS Tu'anekivale	Mele Fa'anunu	8513815
4	GPS Tu'anekivale		6478996
5	GPS Feletoa	Kalesita Fangupo	8899385
6	GPS Makave	Sione 'Alatini	7517507
7	GPS Toula	'Atu 'Ulungamanu	8886977
8	GPS Neiafu	Taiana Tu'ipulotu	7709393
9	GPS 'Utungake	Tevita Toli	8777547
10	MET Office	Taniela Vaha'i	8837834
11	GPS 'Utungake	Alex Burgos	8782300
12	GPS Tu'anuku	Vanesa Kind	8708716
13	GPS Holonga	Filimone 'Anitoni	8417146
14	GPS Tu'anuku	Tevita Latu	8474115
15	Falaleu	Simoneti Toko (Town Officer)	8867976
16	Makave	Sosefo Niukapu (Town Officer)	7710005
17	GPS Nga'unoho	Taniela Ikamanu	8474769
18	GPS Makave	Peni Sinipata	874-2758
19	GPS Tefisi	Fine Sinipata	882-4966
20	GPS Tefisi	Jacqueline Wexel	879-2878
21	GPS Tefisi	Pipiena Liu	8421063
22	GPS Leimatu'a	Mafi.'O.Latu	77334
23	GPS Leimatu'a	Mele.L.Sekeni	870-8695
24	Mizbah High School (Makave)	Alebina Mikaele	770096
25	'Uiha & Sons	Mo'ungamaka	70-910
26	GPS Neiafu	Fipe Latu	70-078
27	GPS Liviela (Neiafu)	Nanise Finau	70-079
28	GPS Toula	Soane Lavakei'aho	8625128
29	Chanel College	'Atomalo Kaufusi	777-2408
30	Fungamisi	Nikola Sesau (Town Officer)	842-8649
31	GPS Ha'alaufuli	'Ilisapeti Likiliki	8420223
32	GPS Holonga	Fine Ikatonga	7774374
33	GPS Longomapu	Sione Lavemai	8323203
34	Neiafu	Vava Fifita (Town Officer)	7701640/8876124
35	GPS Feletoa	'Aisea Paongo	8789099
36	Tailulu College	Talanoa Tu'ipulotu	70432/8416193
37	St.P.Chanel College	Sione Sosefo Fitu Ma'ilangi	7558075
38	GPS Nga'unoho	Sunipa Tepa'ava	8469416
39	V.E.P.A	Lisa Fanua	7517184

COMMUNITY CONSULTATION – KOTU ISLAND Attendance List

Tuesday, 6th April 2017

No.	Name	Position	Organisation	Phone No.
1	Siueti Kaifoto		Siulolo Vao	731-9078
2	Kaneisini 'Ilangana			776-2295
3	'Ana Malau Taufa			77-4944
4	Salote Taufa			73-13623
5	Toekava Pule'anga			774-4266
6	Tupou Mafi			731-8492
7	'Ana Fisi			774-8166
8	Mele 'llangana			
9	Langi Koloa			773-7592
10	Fapiola Mafi			770-6040
11	'Atalia Matangi			
12	Saane Koloa			751-9856
13	Heamasi Koloa	Town Officer		773-7592

COMMUNITY CONSULTATION – Mo'ungaone ISLAND Attendance List

15-16 April 2017

No.	Name	Position	Organisation	Phone No.	
1	Salesi Muli (Male)	Town Officer		7749949	
2	Sione Fifita (Male)			7319781	or
				8441218	
3	Mele (Female)			No mobile	
4	Fina (Female)			No mobile	

COMMUNITY CONSULTATION Tuesday 4th April 2017

Name	Male or Female	ORGANISATION	DESIGNATION	CONTACT NUMBER
'Osai Heitonga	М		Care Taker of Site	7268695
'Ofa Latu	F		Women Committe	7707946
Vai Tau	F			7769274
Moala Vainga	F			7268972
'Elenoa Latu	F			7792202
Lavinia Kolopeaua	F			7708383
Meleane Vea Mafua	F			731792
Talafungani Heitonga	F			7268687
Pouanga Taualupe	М			
Sione Fe'ao	М		Pastor Church of Tonga	7713949
Manase Tualau	М		Town Officer	7268654
Taniela Tualau	М			
Filimone Mahe	М		Pastor Church of Tonga	
Tevita Sikalu	М	Town Officer		Tevita Sikalu
'Isileli Vaikimo'unga	М			'Isileli
				Vaikimo'unga
Vahanoa Laulotu	М			Vahanoa Laulotu
Seini Lasitani	F			Seini Lasitani
'Ana 'Aiveni 'Ainu'u	F			'Ana 'Aiveni
				'Ainu'u
Melelose	F			Melelose
Foukimoana				Foukimoana
Sivani Tungua Tau	F			Sivani Tungua
				Tau
Mele Talilotu Finau	F			Mele Talilotu
				Finau
Fololeni Feimoefiafi	F			Fololeni
				Feimoefiafi
Finau Tuni Tau	F			Finau Tuni Tau
'Ofa Folau	F			'Ofa Folau

'O'ua Island

COMMUNITY CONSULTATION

Wednesday 5 April 2017 Tungua Island

Name	Male or Female	ORGANISATION	Phone Number
Siaosi Tuai	M		
Sunia Tu'ipulotu	М	Reverend	7315991
Vaiki Vaiomo'unga	М		
F. Maka	М		
Levuka Lafitani	М		
Sione Pule	М		
Uatesoni Lasitani	М		
'Unaloto Vaiomo'unga	М		
Lei Lasitani	М		

APPENDIX D- SURVEY RESULTS AND MINUTES OF MEETINGS

Excerpts from survey results from *Tonga Power Limited Proposed Wind Farm Environmental Impact Assessment, July 2014, pages 55-56*:

6.0 Public Consultation

A sample survey of the households of Niutoua, Haveluliku, Lapaha, Fatumu, and Lavengatonga. The respective Town Officers were engaged to distribute the questionnaires. This done intentionally to minimise having an 'outsider' probing into local villagers daily activities. Thus allowing the village people to be 'free' in answering the questionnaire paper. It is noted here that when specific turbine sites are determined, there will be further dialogue with the communities concerned. It is envisaged that this will be carried out in the last quarter of this year.

For six weeks (June-July 2014), various communities were approached regarding the TPL proposed wind farm in the Hahake Districts. This was followed on with a questionnaire survey, distributed through the Town Officers for each township.

Township:	Number of respondents:	Total Households:
Niutoua	43	119
Haveluliku	18	28
Fatumu	36	67
Lavengatonga	26	69
Lapaha	63	343
Total:	186	626

Table 6: Number of household responds.

6.2 Community Development Perceptions:

As expected, there were a lot of expectations ever since the installment of the monitoring tower in Lapaha about five years ago. This expectation was again brought to the forefront when TPL installed the microwind turbine in Nakolo in 2012. In hind sight, people expected to have some type of wind power initiative for some time now.

The general view on foreign aid was very positive and most people cited the projects that helped improve their water supply and reticulation lines. Further, assistances from local people who live overseas was also acknowledged by the local people.

However, the participants did raised their desires to see more street lights, and improvement of the lines (poles and poles.

It is quite interesting to see that the needs of the people are predominantly based on their daily life. Hence, the most people (32%) preferred more street lights; need additional lights and poles (17%); and there is need for renewable energy (17%). Only about 1% wished that the tarrif will be lower, which is oddly low figure. Despite this low expression of need to reduce the tarrif; more than 70% acknowledged that the tarriff is too high. Understandably, about a quarter of the participants have needs that were not related to TPL; and some have expressed no needs (9%).

6.3 Community Perception of TPL and the proposed wind farm:

A lot of people admitted that they experienced and witnessed the improvements in TPL's infrastructure and services. Further, most of the participants expressed their appreciation and support for TPL's proposed wind farm.

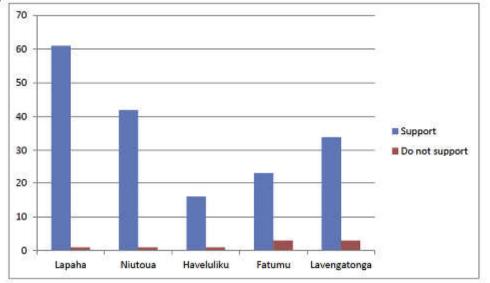


Figure 20: Public support for the proposed wind farm.

Tongatapu Wind Generation Feasibility Study Aurecon Study, Phase 2 Feasibility Study, Final Draft, 1 February 2015

2.2 Site Visits

The following country visits were undertaken during Phase 2, Part 1 of the project:

- Land and Environmental (24-28 Nov) Shaun Cornelius (Infratec Renewables), Louise Strogen (Aurecon) and Chris Wedding (Bioresearches). The purpose of the visit was to meet with key stakeholders (See Appendix 1 for list of meetings) in relation to land expandion and environmental permitting. The two sites were also visited to undertake an initial assessment of potential environmental and social issues 1
- Gentech and Civil (8 12 Dec) Richard Satistion (Aurecon). The primary purpose of this visit was to dig a number of 2 4m test pits at a range of locations at both sites to assess the general geotechnical conditions in the area and at some of the potential wind turbine positions. The secondary purpose

Page | 10 MFAT - Tongatabu Wind Generation Reasibility Study - Phase 2 Report - Draft 1 Feb 2015 7 Land Rights Acquisition

All land parcels at both sites that would be potentially be used for wind farm development are privately owned and separate agreements giving the necessary access / occupation rights will be required with each landowner. TPL will be responsible for the securing of land rights sufficient to enable investigations and project development to proceed. TPL have considerable experience in negotiating with landowners and have given thought to how to proceed with land rights acquisition for the project. Infratec staff have provided input to TPL based on their experience with securing land rights for projects in New Zealand and Australia. Key points of the recommended strategy are as follows.

- Land rights acquisition would not commence until the feasibility process has been completed.
 Securing long term access rights would commence once the Feasibility Study recommendations (including identification of a preferred site) have been accepted by MFAT/TPL/ Govt of Tonga.
- Secure long term access options for the preferred site only and not both. It would be unfair and
 involve a lot of extra effort to secure both sites if only one is likely to proceed in the near term.
- The landowners at the preferred site will be negotiated with as a group, with everyone offered the same terms. There is expected to be a considerable group and community pressure on any holdouts to come into line.
- Where possible options regarding which properties will be used at the preferred site will be kept open to help ensure agreement can be reached quickly. Also keeping the alternative site in play will aid the negotiations.
- The form of agreement would be an investigation/development agreement that gives:
 - Rights to carry out investigations on the land;
 - An option to put in place leases and easements/ROWs as necessary for the development, with the terms agreed upfront.
- Once the project design is finalised and approved to proceed the leases and easements/ROWs would be put in place.
- The investigation/development agreements would be registered on the land titles, as would the final leases etc.
- The lease term is likely to be 30 years with a right of renewal. There may be a requirement for renegotiation of the lease payments as part of the renewal, but this depends on the negotiations.
- The starting point for negotiation of lease payments will be a valuation of the leased land, based on
 current use. Standard rates will apply for compensation for coconut trees, taro patches etc. which are
 removed / destroyed during investigation / construction.

TPL advise that there is a high degree of awareness and local support for wind development within the communities near the Lapaha site, because of its previous identification as a wind development site. Awareness amongst the Niutoua communities is lower because the investigations have been low key to date. In both cases TPL anticipate that it will be possible to secure the necessary land rights for a development.





was to assess civil and transportation issues, including meeting with the Ports Authority and concrete production facilities.

2.3 Site Locations

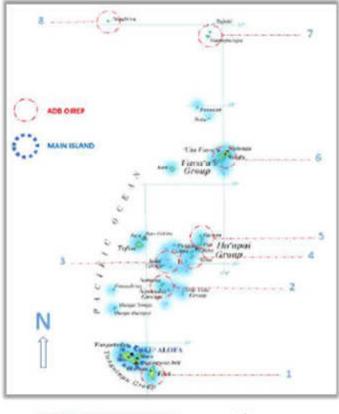
The general topography of the Island is shown in Figure B. The predominant wind direction is south-southeasterly, and the most exposed part of the Island is along the south-eastern coast. This is therefore the areawith the best wind resource and the focus for potential wind farm development opportunities. The general locations of the two potential wind farm sites reviewed in this study are shown in Figure A. The sites are as follows:

- Niutoua, which has a currently operating wind monitoring mast;
- Lapaha, which was the site of a prior wind monitoring mast;

Mesoscale modelling indicates that the eastern coast of the island represents the best opportunity for wind development, even though potential sites are further from electrical and civil infrastructure. OIREP PHASE 2 (OF-GRID GENERATION) & PHASE 4 (OFF-GRID NETWORKS) SITE VISIT REPORT



<u>Tonga "Outer Island Renewable Energy Project"</u> (OIREP) Phase 2 Site Visit Report. March 2016.







OIREP PHASE 2 (OF-GRID GENERATION) & PHASE 4 (OFF-GRID NETWORKS) SITE VISIT REPORT

9.9 NFO site visits;

- STR identified possible locations for each of the Centralised Solar Centres (CSC's). Local consultations as to the ownership of the land also took place.
 - a. For example; the village of Mus has an old Community Hall location with 3 broken water tanks. After consultation, it emerged that the hall is on land belonging to the Wesleyan church and that there are 3 religious denominations within the small village. We were assured however that no discrimination would take place and that the community shall discuss the matter with the head of the Wesleyan church on NFO. The Project should look for proof of this meeting outcome.
- DFAT and the PM carried out several "one on one" community consultations with local women and men.
- TPL took the opportunity to carry out their necessary investigations into the possible NFO mini-grid and centralised power station.



Figure 33 shows some of the "old" batteries that have been replaced. They are left to rot and are an environmental risk.



Figure 34 shows an example of the new batteries that have been installed on NFO by the local solar committee.

APPENDIX E – AUGUST 2018 CONSULTATIONS

UPDATED STAKEHOLDER CONSULTATION RECORDS

HA'APAI, VAVA'U & TONGATAPU, AUGUST 2018

BACKGROUND

The initial safeguards site visit and stakeholder consultations for TREP were held from 28 March - 10 April 2017 both in Tongatapu and in the outer islands of 'Eua, Ha'apai, and Vava'u confirming community and stakeholder support for the proposed project. Niuafo'ou in the remote north of the island group was not part of this initial exercise but had earlier confirmed their support in 2016 under previous consultations carried out under the OIREP project. Affected land owners and, respective communities in the remote offgrid outer islands in particular agreed to the proposed larger capacity power source to operate household appliances, lighting and carpentry tools in their households. This would provide major economic and social opportunities to help alleviate poverty on their respective islands. The main concern raised throughout the consultations was to ensure that potential tariffs were more affordable as a result of this new investment in renewable energy sources. No other significant concerns were raised by the land owners, or their representatives, during this initial safeguard visit. In total, at least 94 people, 42 women (45%), were consulted during consultations carried out on this initial visit from 28 March to 10 April 2017 in all project sites.

PROJECT FACT- FINDING MISSION CONSULTATION UPDATE (AUGUST 27 - SEPTEMBER 7, 2018)

The project team with the aid of MEIDECC and TPL was tasked to update stakeholder consultations with affected land owners, or their official representatives and relevant key stakeholders during the project fact-finding mission. Consultations during this visit included both Tongatapu, Vava'u and the Ha'apai outer islands. MEIDECC will ensure that consultations would take place at a later date on Niuafo'ou and TPL for 'Eua island. The objective of consultations comprised the following:

- (i) ENTURA and MEIDECC to present the scope of project works for all project sites.
- (ii) Introduce potential institutional setup for TREP mini-grids in particular on Ha'apai outer islands and discuss new institutional setup as well as anticipated tariff [expected roles and responsibilities of TPL/MEIDECC/Labor/Internal Affairs, Private Sector and Community].
- (iii) Discuss status of existing solar home systems, solar freezer systems and solar street light systems in the Ha'apai outer islands which will eventually be relocated to other MEIDECC project sites.
- (iv) Ensure discussion of their potential concerns at this stage and obtain recommendations, during these meetings for all project sites.
- (v) Procedures for grievance redress will also be discussed with the community and the affected land owners.

In addition, both IAs are to conduct separate meetings with affected land owners and the Ministry of Lands to:

(i) Ensure the boundaries of each affected allotment be correctly marked and recorded,

- (ii) Inform affected land owners about the policies and procedures regarding entitlements for improvements on the land to be leased by the project, if applicable,
- (iii) Inform the land owners when and how compensation, if applicable, for affected assets including land, trees or crops will be compensated or replaced, and
- (iv) Consult property valuer at Ministry of Lands on land compensation and proper land acquisition procedures.

'O'UA ISLAND (HA'APAI) CONSULTATION MINUTES (27/08/2018)

The meeting was officially opened by a prayer by the town officer. MEIDECC representative then presented the purpose of the meeting which was to present the potential scope of works, revisit and confirm community commitment to the project and reconfirm land acquisition requirements for the project.

ENTURA representative in support of the proposed project went into further detail on the scope of works ranging from the solar farm to the technical aspects of the mini-grid.

The floor was then open for discussion, questions and clarifications from the community.

A member of the community thanked the team for presenting the proposal which he feels the community is in clear agreement with. The economic opportunities that would be enabled by the investment is welcome for his village. The only question he had for the team was if there were any work opportunities for the local people in construction and operation of the investment. The MEIDECC representative in response confirmed that work will be encouraged to the contractor to hire locals for various tasks in construction such as trenching of the mini-grid etc. Furthermore, in operations, the project will help build the capacity of certain local individuals to operate and maintain the investment.

The MEIDECC representative continued to explain that in anticipation of the project, the community needed to shore up the current island solar committee to oversee eventual operations of the project. From O&M to collection of power bills, a new institutional set up that was more accountable and competent needed to be in place. The community agreed that this was justified and that this would be further discussed with MEIDECC.

Another member of the community also expressed his gratitude for the upcoming investment and questioned only what the tentative schedule is for project implementation. ENTURA responded by stating that it is estimated to begin by middle to late in the year 2019.

The representative from ENTURA continued by querying the community to confirm if the proposed site's landowner had given their consent to lease the proposed site for the project. The town officer confirmed that the current landowner Mr Saia Tohi (now resident in Australia) had confirmed consent. Only remaining issue now was for MEIDECC to follow through on the necessary documentation with Ministry of Lands. On road alignments for the mini-grid, the community also confirmed that these had been already mapped and are the existing road alignments seen today. The MEIDECC representative concluded the discussion as there were no more further queries by stating that the existing solar freezer project would be removed from the island and is expected to be solely powered from the proposed mini-grid.

The representative from ENTURA thanked the community for their attendance and active participation and the town officer reciprocated on behalf of the community before closing the meeting with a prayer.

TUNGUA ISLAND (HA'APAI) CONSULTATION MINUTES (28/08/2018)

The meeting was officially opened by a prayer by the town officer.

MEIDECC representative then presented the purpose of the meeting which was to present the potential scope of works, revisit and confirm community commitment to the project and reconfirm land acquisition requirements for the project. The last issue is of particular concern to the project due to discrepancies between identified multiple project sites on the previous project site visits. ENTURA representative in support of the proposed project went into further detail on the scope of works ranging from the solar farm to the technical aspects of the mini-grid.

The floor was then open for discussion, questions and clarifications from the community.

The town officer opened proceedings by noting that of the four proposed sites, he was assured on one of the sites of which he was the caretaker for the rightful owner who does not currently reside on island. This was the last site that was measured and deemed appropriate by the project team on their last site visit. The land belongs to an individual known as Mr Heneli Hopoi.

The discussion then focused on existing road alignments and potential easements for the minigrid. A representative from the community noted that to the best of their knowledge, only two existing roads have been officially mapped on the island and both of these roads run parallel to the coast line. The ENTURA representative indicated that it was critical that further roads be mapped out as this would enable mini-grid access to Tungua households.

The town officer in response noted that there are historically 6 existing access roads that connect the two main parallel roads, but as to of their official status he was uncertain. This was matter that needed to be investigated and if need be, officially mapped so that all households are provided access to the mini-grid. The MEIDECC representative agreed and noted that his Ministry will follow-up on the issue with the Ministry of Lands so that it could be done in conjunction with the official mapping of the proposed solar farm site.

The MEIDECC representative then continued to explain that in anticipation of the project, the community needed to shore up the current island solar committee to oversee eventual operations of the project. From O&M to collection of power bills, a new institutional set up that was more accountable and competent needed to be in place. The community agreed that this was justified and that this would be further discussed with MEIDECC.

The representative from ENTURA thanked the community for their attendance and active participation and the town officer reciprocated on behalf of the community before closing the meeting with a prayer.

KOTU ISLAND (HA'APAI) CONSULTATION MINUTES (28/08/2018)

The meeting was officially opened by a prayer by the Kotu Methodist church minister.

MEIDECC representative then presented the purpose of the consultation meeting which was to explain the potential scope of works, revisit and confirm community commitment to the project and reconfirm land acquisition requirements for the project.

ENTURA representative in support of the proposed project went into further detail on the scope of works ranging from the solar farm to the technical aspects of the mini-grid.

The floor was then open for discussion, questions and clarifications from the community.

The assistant town officer open proceedings by noting that he was assured the Kotu community welcomed this proposed investment to their island. He noted that there was a vast array of benefits that he foresaw for the island should the investment come through as proposed. He thanked the project team, the donors and the Government of Tonga for allowing Kotu to be one of the selected few islands to participate in this project.

The representative from ENTURA enquired about land ownership and the existing road alignments and the community confirmed that all was still in order as the last safeguards site visit with the owner Mr Ilangana still residing on the island and still very supportive of the project.

A community representative questioned what was to happen to the existing solar home systems and the solar freezer. In response MEIDECC noted that all existing solar assets would be decommissioned and taken off island, with the community encouraged to employ only the solar mini-grid for electricity.

The same community representative also questioned if the community can sell these assets to nearby residents on the island of Tofua which currently had no solar home systems. MEIDECC in response clarified that this cannot be done as all assets were still owned by government and cannot be sold for commercial benefit. A survey however will be conducted to Tofua island to determine the number of residents and need for the solar home systems. The assets will then be distributed fairly under existing government procedures based on the findings of this final assessment.

The MEIDECC representative then continued to explain that in anticipation of the project, the community needed to shore up the current island solar committee to oversee eventual operations of the project. From O&M to collection of power bills, a new institutional set up that was more accountable and competent needed to be in place. The community agreed that this was justified and that this would be further discussed with MEIDECC.

The representative from ENTURA thanked the community for their attendance and active participation and the assistant town officer reciprocated on behalf of the community before Church of Tonga minister closed the meeting with a prayer.

MO'UNGA'ONE ISLAND (HA'APAI) CONSULTATION MINUTES (29/08/2018)

The meeting was officially opened by a prayer by the Mo'unga'one church minister.

MEIDECC representative then presented the purpose of the consultation meeting which was to explain the potential scope of works, revisit and confirm community commitment to the project and reconfirm land acquisition requirements for the project.

ENTURA representative in support of the proposed project went into further detail on the scope of works ranging from the solar farm to the technical aspects of the mini-grid. He further elaborated on the potential benefits to the community to be provided by the project.

The floor was then open for discussion, questions and clarifications from the community.

The representative from MEIDECC queried the availability of the proposed solar farm site and the existing road alignments for the proposed mini-grid. In response a community member noted that under the World Bank Cyclone Ian house reconstruction project, a lot of land surveying had been

carried out on the island to confirm residential properties. He noted however that there was only one main road officially mapped on the island. The proposed piece of land also after recent measurements by the last technical team indicated that a small additional portion would be required from the adjacent property. The original piece of land belonged to Mr 'Aisea Fainga'anuku and the adjacent property to Mr 'Anau Poutele.

MEIDECC acknowledged by confirming that both properties would be properly surveyed and marked for the solar farm with proper compensation for the required leases. The road alignments would also be included in the surveying work. If necessary however and that proposed alignments did not provide adequate access to all households on the island, written easement consents would need to be obtained before civil works.

The MEIDECC representative then continued to explain that in anticipation of the project, the community needed to shore up the current island solar committee to oversee eventual operations of the project. From O&M to collection of power bills, a new institutional set up that was more accountable and competent needed to be in place. The community agreed that this was justified and that this would be further discussed with MEIDECC.

The representative from ENTURA thanked the community for their attendance and active participation and the assistant town officer reciprocated on behalf of the community before the Church minister closed the meeting with a prayer.

VAVA'U CONSULTATION MINUTES (30/08/2018)

The meeting was officially opened by a prayer by a designated representative from TPL.

Welcoming remarks were then provided by the TPL host for the meeting with the meeting chaired by the Neiafu town district officer.

The TPL strategic program manager then presented the purpose and objectives of the consultation meeting on a power point presentation which explained the potential scope of works, revisiting and reconfirming community commitment to the project and reconfirming land acquisition requirements for the project. The national renewable energy target of 50% by 2020 was clarified and she further elaborated on the potential benefits to the community to be provided by the project including possible tariff reductions.

The floor was then open for discussion, questions and clarifications from the community and relevant project stakeholders.

The MEIDECC resident representative in Vava'u started proceedings by requesting further clarification on potential tariff reduction. She emphasized that this would most certainly confirm universal support for the proposed project. She further queried on why Niuatoputapu was not included in this project but that Niuafo'ou was. In response, TPL indicated that on the former, tariff is calculated for all of Tonga and not just to Vava'u and as such, percentage reductions will depend on combined efforts to reach the country's renewable energy target of 50% by 2020. At the moment, it sits on approximately 17% but with this investment can increase substantially. On the latter, Niuatoputapu is already included but under a separate project known as the Outer Island Renewable Energy project.

A community representative living in close proximity to the proposed site then spoke up by stating that he was fully in support of the project and its objectives. He was however opposed to the current proposed site as he and the adjacent community relied on the bush allotment for

subsistence farming and various other activities. He proposed that the project team continue looking for other alternative options that could be available for siting of the solar farm. In response TPL noted that the benefit of the current site was that it was in close proximity to the existing solar farm and TPL power station and that it was logistical sense to locate it there. She however noted that other options were still being explored and that consultations would again be held in the future to finalize the site.

A member of the community however noted that this proposed allotment belonged to the King as the estate holder and that he would have the final say on the matter. TPL in response noted that should the project continue on the current site, that all affected persons including any standing crops will be compensated at fair market value even despite the fact that they did not own the land.

The town officer then enquired if there were any potential health hazards to be expected from the solar farm and if there was a need to cut trees in adjacent properties to avoid shading. TPL responded by assuring the meeting that there would be no health risks to the community at large from operation of the solar plant and that during construction all necessary health and safety measures will be in place. On shading, TPL confirmed that this will all be handled through the project compensation process.

TPL thanked the community and stakeholders for their attendance and active participation and the District officer reciprocated on behalf of the community before he closed the meeting with a prayer.

TONGATAPU CONSULTATION MINUTES (06/09/2018)

The meeting was officially opened by a prayer by a TPL representative.

The CEO of TPL then gave welcoming remarks emphasizing the Tonga energy road map and it's national objectives. Noted that since 2010, the ideal was to reach a 50% renewable energy target by 2020. The meeting had been called thus to present the purpose of the consultation meeting which was to explain the potential scope of works, revisit and confirm community commitment to the project and obtain all relevant recommendations and comments on the proposed project.

The TPL Strategic program manager opened her presentation highlighting the historical dependence on fossil fuels of the country. There are wide ranging consequences from climate change to high electric tariffs. As such, government started in 2008 with the enactment of the renewable energy act. This led to the Tonga renewable energy road map (2010-2020) which has guided various donor investments over the years all over Tonga. At this stage the present installed capacity of renewable energy is 6.2 MW. On record the best renewable energy penetration into the grid is 14% at an average of 7%-10%.

Proposed works in the pipeline to lift these targets are in 3 phases. Phase 1 (2014-2019) is under way and almost complete. Phase 2 (2017-2019) is under implementation with Phase 3 (2018-2020) now under discussion in design for implementation. She then presented the proposed project in further detail with regards to the scope of works ranging from the proposed wind farm, solar farms to the technical aspects of storage batteries.

The floor was then open for discussion, questions and clarifications from the community and relevant stakeholders.

Town officer for Nukunuku queried decommissioning of solar plants and the risk to his community. He noted that there had been solar run water pumps and solar home systems which had failed in the short term, yet the failed assets remain in his community. In response TPL CEO noted that technologies are vastly different, furthermore there will be O&M budget and the life cycle of the system is quite sustainable. Further solar energy infrastructure will not have any health impacts on the community. In addition, the Director of Energy noted that these small projects were not sustainable as business models to collect revenue for maintenance had failed. Where they have succeeded, the small-scale projects have been self-sustaining.

Tofoa representative queried on geothermal possibility and whether these solar farms can withstand tropical cyclone. In response TPL CEO noted that it was a possibility but to date no significant studies have been conducted. Unlike the wind farm which has collected some data over the years and proved its feasibility. The solar farms are also climate resilient and can withstand large category strength cyclones.

Civil society representative welcomed the opportunity to join the consultation, then she questioned whether there were any hazardous chemicals in the solar systems in particular batteries. She also advised presentation to use less technical language when the consultation goes out to the communities.

In response, the TPL CEO noted that chemicals in solar panels can only be released when burned. Furthermore, the language will be less technical when it goes out to the community to ensure that the message is well received.

Tonga ADB resident representative in support of TPL noted that it was critical for the town officers present to disseminate the information into their communities. This will raise awareness on the initiative and safeguard the investment.

MEIDECC Director of Energy emphasized that if the country was to reach its 50% target, the community needed to work hand in hand with government. This can be achieved through reducing demand as it will impact well on supply. Energy conservation he believes is still a major issue for Tonga.

Representative from Lapaha district in support indicated that there were also other aspects of public lighting assets that could be cut back to reach this target. In response, TPL CEO confirmed that this was a prerogative of government and responsibility lay with the Ministry of Finance. The Director of Energy concluded the meeting and thanked the Department of Climate Change for enabling this energy project to go through to the GCF. He also thanked the TPL CEO and his staff for progressing this project forward and acknowledged the support of the community, district and town officers.

The Tofoa town officer closed the meeting with a prayer.

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Date: 28 . 08 . 2018.

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LIST OF PARTICIPANTS

Of the Tonga Power Limited Future Renewable Energy Projects Consultation 6th September 2018; 2pm- 4pm MEIDECC, Conference Room

Total number of participants

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APPENDIX F - INITIAL LAND OWNER INFORMATION (TPL SITES IN TONGATAPU AND 'EUA)

Site/Location	INFORMATION 1. Are you open to lesing your land to TPL/MILLOR CC for the solar/wind proposed project? (Your No)	2. Name of Land Owner	3 Ago	4. Main Income Source (a.g. terring, fishing, resking tear), remittance, pension etc)	Allsinnert	5. No. of Members in the Hill	6. List of name, gander, and age of children	7. No. of dependents (actool age up to 36 years off)	8. Any other members in the houshold who are employed? Yes or No.		33. Any mention of the household with disability or special needs? (Pesion Na)	11. If yes, pis state who are type of disability/special needs	pou have access to eg	14. Bo you have any concerns re-possible leaving of this land to TPL/WEIDEOC	recommendation to th
	If Yes, as proceed with interview to pat bens information of the least extensionally or throug representative.	C													
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Matahonua		Keletale Lius Osa		deceased (Heir resides In Hawali - Lius Oto Inr)											
		Kabeland		Nusk (Vatement)	ia (Poince) Xence)		5 ch Idren (Ru Husztonga Katafoti o Lapaina (R), Statoti Ru Tau Ki Velaki (M) Herriot (N) Paule Nunafasi Keo (M) David Munafasi Keo (M) David								
Mataforus Mataforus Village		Kabel and Volenges Tupos (contact person: Arrethi Pukanga 644-7389	-95 -71	peadon (relined from		y	Nacata (M), Uana (M), Valengina (Decement) Arreter (F), Mikaele (F), Fakansi (M), Penasla (F)		ADS (Ameri si s Tusbond)	Arrey Soldler	NO				
Niutoua	1	Latu Kengika	63	Liwng in Melbourne, Australia (1 Cedar Court, altona Meodows Melborne 00613)93696756	4										
ŝ	2	Totos Pohshau (Lives in Nukunuku,)	48	Farming		:4	6 children 2 of which are currently with their parents here in Tonga whom are still in high school)		KO.		NO	NO			

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- ⁰⁰	1. Are you open to lening your lend to TPL/NEIDECC for the taber/wind proposed project? L'Yes of Naj	2. Name of Land Owner 3	, Age		Albinnent	5. No. of Members in the HH	5. List of name, gender, and age of children	dependents (school ago up	8. Any other members in the houshoold who are employed? Yes or No.		33. Any member of the heasehold with desbility or special needs? (Mea or No)	LL. Hyes, as state who are type of disability/special mode	scre, ¹ Hs, the land do you have access to op	14. Be you have any concerns re-possible leasing of this land to TPL/MEDICC	recommendation to the
	3									_					
	4									1					1
	5	Sione Pohahau (contact person: Sione Mau Pohahau (brother) living in Niutoua		Land owner Lives in NZ											
		Tevita Finau (sontact person: Lea'inga - brother Niutoua)		Lives in Salt Lake (USA)											
	7	Saafa Faloval													
	8	Mele Fualaio (contact person: Tautaia (daughter) living with her 7748485	76	remittance		35	10 omoren enajry, Satinijfj, Kasa (fj, Solo (M), Kakala(Fj, Fa (f), Silia(f), Tacileo (M), Vai (fj, Tautala(f)	4 under age of 16, 5 are dependent as they are still in high school	ко		NO		Kare		
		Villami Liku Mahe (contact person Mosese Mahe- younger brother, Niutoua)		Deceased in Australia in 2016 (Heir lives in Australia = Amanaki Mahe)											
	11	Tevita Latu		deceased in the 1990s. Heir is Tonga Latu living in Tonga (Niutoua)											
	12	Naa Vehikite		Lives is Hawali											
	13	Ofa ki Holeva Pani		Lives in NZ His daughter lives in Fangaloto)											

ocatio n	1. Are you open to lesing your land to TPL/MEIDECC for the solar/wind proposed project? (Yes or No)	2. Name of Land Owner 3	l.Age		Attainment	6. List of name, gender, and age of drildren	dependents (school age up	8. Any other members in the houshoeld who are employed? Yes or No.	state no and type of work.	10. Any member of the household with disability or special needs? (Yes or No)	11. Fyes, pis state who and type of disability/special needs	acre/Ha, the land do you have access to eg for food/income,	13 What are the potential benefits to you and your family, if to lease a portino of your land?	1.0000200032503	recommendation to the
- 71a	liss)iscensi	1 Pentri Ikli Joesin HZ													
		Cha skrie Lot 18													
Tirga	165	ti Sesi jungar (bes ar- slam)	5	1 Fisting and rais reptig:	Secondary	4	2 [Cass 3]	Note	None	None	1/a	Do not know, have 3 other parce of lancs.	Will bring welcome recone to his family.	Nore	Vore
		860, 140713, Lo: 53													
- Katu	Ves (home)	5 Sinde languas (h.e. k Vizi													
		Rotu sland: Doll S0										1			1
Vic'ung aora		E. U. Foliak Rençolmuna (hein Aseo Fairquanako (kes overses to 19) yearo onnar: santalen is ita Tovn Offae)													
		850x 152°151 Lol 48													

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LANDOWINER INFORMATION (MEIDEOC - HA'APAI OUTER ISLANDS)