

# Readiness Proposal

---

**with Global Green Growth Institute (GGGI) for the Republic of Vanuatu**

16 March 2017 | Strategic Framework



**GREEN  
CLIMATE  
FUND**

# Readiness and Preparatory Support Proposal

## How to complete this document?

- A [readiness guidebook](#) is available to provide information on how to access funding under the GCF Readiness and Preparatory Support programme. It should be consulted to assist in the completion of this proposal template.
- This document should be completed by National Designated Authorities (NDAs) or focal points with support from their delivery partners where relevant.
- Please be concise. If you need to include any additional information, please attach it to the proposal.
- Information on the indicative list of activities eligible for readiness and preparatory support and the process for the submission, review and approval of this proposal can be found on pages 11-13 of the guidebook

## Where to get support?

- If you are not sure how to complete this document, or require support, please send an e-mail to [countries@gcfund.org](mailto:countries@gcfund.org). We will aim to get back to you within 48 hours.
- You can also complete as much of this document as you can and then send it to [countries@gcfund.org](mailto:countries@gcfund.org). We will get back to you within 5 working days to discuss your submission and the way forward.

### **Note: Environmental and Social Safeguards and Gender**

Throughout this document, when answering questions and providing details, please make sure to pay special attention to environmental, social and gender issues, in particular to the situation of vulnerable populations, including women and men. Please be specific about proposed actions to address these issues. Consult page 4 of the readiness guidebook for more information.

SECTION 1: SUMMARY	
<b>1. Country submitting the proposal</b>	<p><b>Country name:</b> Vanuatu</p> <p><b>Name of institution (representing National Designated Authority or Focal Point):</b> Ministry of Climate Change, Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management of the Republic of Vanuatu</p> <p><b>Name of official:</b> Mr. Jesse Benjamin      <b>Position:</b> Director-General</p> <p><b>Telephone:</b> +678 24094      <b>Email:</b> jbenjamin@vanuatu.gov.vu</p> <p><b>Full Office address:</b> PMB 9054, Port Vila, Vanuatu</p>
<b>2. Date of initial submission</b>	14 December, 2016
<b>3. Last date of resubmission (if applicable)</b>	n/a
<b>4. Which entity will implement the Readiness and Preparatory Support project? (Provide the contact information if entity is different from NDA/focal point)</b>	<p><input type="checkbox"/> National Designated Authority <input checked="" type="checkbox"/> Delivery partner <input type="checkbox"/> Accredited entity</p> <p><b>Name of institution:</b> Global Green Growth Institute (GGGI)</p> <p><b>Name of official:</b> Marco Yamaguchi      <b>Position:</b> Principal Investment Specialist, Green Investment Services</p> <p><b>Telephone:</b> +82(70)-7117-9965      <b>Email:</b> marco.yamaguchi@gggi.org</p> <p><b>Full Office address:</b> 19F Jeongdong Bldg., 21-15, Jeongdong-gil, Jung-gu, Seoul 100-784, Republic of Korea</p>
<b>5. Title of the Readiness and Preparatory Support Proposal</b>	Readiness Support for the Development of the Vanuatu National Green Energy Fund
<b>6. Brief summary of the request (200 words)</b>	<p>This proposal seeks US\$370,000 in GCF Readiness funding to support the Government of Vanuatu (GoV) in establishing the National Green Energy Fund (NGEF) as approved by Vanuatu's Council of Ministers in April 2016.</p> <p><b>The readiness funding will be used to complete the first stage of development of NGEF –</b> completing the feasibility studies with an aim to enable an informed decision by GoV regarding the NGEF strategy and implementation priorities. A representative set of islands will be selected, based on the preliminary scoping for islands carried out by Vanuatu Department of Energy (DoE), to proceed with feasibility studies. There are 3 stages to establishing and developing NGEF:</p> <p>Stage 1: Feasibility studies Stage 2: NGEF design Stage 3: NGEF operationalization</p> <p>This proposal seeks <b>funding for Stage 1 only</b>. The following three feasibility studies will be conducted in stage 1:</p> <ol style="list-style-type: none"> <li>1. Market demand study</li> <li>2. Renewable Energy (RE) Technologies feasibility study</li> <li>3. Market and business model study</li> </ol> <p>These three feasibility studies will jointly inform the strategy and implementation planning of NGEF by bringing out the potential opportunities – both short term and long term; and will directly feed into the next stages of development of NGEF.</p>
<b>7. Total requested amount and currency</b>	USD 370,000
<b>8. Anticipated duration</b>	January – July 2017 (total number of months: 7)
<b>9. Is the country receiving other Readiness and</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



## READINESS AND PREPARATORY SUPPORT PROPOSAL TEMPLATE

PAGE 3 OF 13 | ver. 19 August 2016

### Preparatory Support related to the GCF?

If yes, please attach the relevant scope of work, and briefly (100 words) describe the scope of support provided by other institutions

1. Readiness and Preparatory Support proposal dated 03/08/2015 for Areas 1 (NDA/focal point support) and 2 (Strategic frameworks for engagement) with the GIZ as Delivery partner is focused on NDA strengthening and Strategic Framework
2. Readiness and Preparatory Support proposal dated 26/10/2015 for Area 4 (Pipeline development) with the SPREP as Delivery partner is focused on the Climate Information Services.

## SECTION 2: COUNTRY READINESS LOGICAL FRAMEWORK

Please complete the table below, which enables a country to assess its readiness for the GCF and set targets for strengthening its readiness, including proposed outputs and activities to improve the country's readiness. For further guidance on completing the table, please refer to the guidebook "Accessing the GCF Readiness and Preparatory Support Programme".

OUTCOMES <sup>1</sup>	BASELINE	TARGET	ACTIVITIES <i>(including key outputs or deliverables where applicable)</i>
<b>1. Country capacity strengthened</b>	<b>0-8</b>	<b>0-8</b>	
<i>1.1 NDA/focal point lead effective coordination mechanism</i>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	Coordination mechanism already in existence. This will entail the mobilization/engagement of the National Advisory Board for Climate Change and Disaster Risk Reduction (NAB) membership and other key stakeholders through the NAB Secretariat to engage and support the readiness process- Outputs – Consultation reports, minutes of the NAB.
<i>1.2 No objection procedure established and implemented</i>	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	No Objection procedure will be by way formal endorsement by the NAB as per previous readiness initiatives. Outputs – formal minutes of the NAB and endorsement letter from the NAB.
<i>1.3 Bilateral agreements between the country and the GCF executed</i>	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	Agreement to be reviewed by State Law Office (SLO) prior to execution as per previous agreements for readiness activity. Output – Legal Opinion from SLO, Copy of the executed agreement.
<i>1.4 Monitoring, oversight and streamlining of climate finance</i>	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	Financial Management and Information System of the Government of Vanuatu is key to the fiduciary aspects of all projects implemented under the NAB and is widely utilized by major donor partners. Additionally the FM practices and guidelines of the partner GCF accredited entity will add value to the existing national system and processes. Output – FRs, FMM.
<b>2. Stakeholders engaged in consultative processes</b>	<b>0-8</b>	<b>0-8</b>	
<i>2.1 Stakeholders engaged in consultative processes</i>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	Stakeholder engagement and consultative processes already exist through the NAB. As previously done for initial readiness initiatives, this will entail the mobilization/engagement of the NAB membership and other key stakeholders through the NAB Secretariat to engage and support the readiness process- Outputs – Consultation reports, minutes of the NAB.
<i>2.2 Country programmes, including adaptation priorities, developed and continuously updated</i>	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	The readiness process will, through the consultation activities, generate new information that can be used to update the adaptation priorities of the country as reflected in the NAPA, NDC and the national Climate Change Policy. Outputs – List of new and additional adaptation priorities.

<sup>1</sup> Based on decisions: B.08/10, annexes XII, XIII & XIV; B.08/11; B.11/10, annex I; B.12/20, annex I

2016

2.3 Stakeholder consultations conducted with equal representation of women	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	Gender sensitive stakeholder engagement and consultative processes already exist and guaranteed through the NAB. As previously done for initial readiness initiatives, this will entail the mobilization/engagement of the NAB membership including the Department of Women's Affairs, NGOs, women's groups and other key stakeholders through the NAB Secretariat to engage and support the readiness process- Outputs – Consultation reports, minutes of the NAB, Attendance list.
2.4 Annual participatory review of GCF portfolio in the country organized	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	The growing readiness support being accessed by Vanuatu warrants annual participatory review of the GCF portfolio. This will be conducted through the NAB given its mandate and key role in the consultation and endorsement processes of readiness initiatives. Outputs – Annual Review report from the NAB, Minutes of the NAB
<b>3. Direct access realized</b>	<b>0-8</b>	<b>0-8</b>	
3.1 Candidate entities identified and nominated for accreditation	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
3.2 Direct access entity accredited	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	
3.3 Entity/ies annual/multi-annual work programme developed	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	
3.4 Funding proposals through enhanced direct access modality approved	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	
<b>4. Access to finance</b>	<b>0-8</b>	<b>0-8</b>	
4.1 Structured dialogue between the NDA/Accredited Entities and the GCF Secretariat organized	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
4.2 Country programmes, concept notes, including on adaptation, developed that implement high-impact priorities identified in INDCs and other national strategies or plans	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	
4.3 Project/programme preparation support, including for adaptation, to develop funding proposals provided	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	Feasibility studies that inform GoV the most appropriate strategy and implementation priorities for the National Green Energy Fund - NGEF. The studies will dissect and consider gender dimensions in the energy sector at market demand study.
4.4 Funding proposals, including for adaptation, that are aligned with country priorities approved	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
<b>5. Private sector mobilization</b>	<b>0-8</b>	<b>0-8</b>	



**2016**

5.1 Private sector engaged in country consultative processes	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
5.2 Enabling environment for crowding-in private sector investments at national, regional and international levels exists	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
5.3 Funding proposals for private sector projects/programmes, including for adaptation, approved	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	<input type="checkbox"/> 0 <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2	
5.4 Funding proposals under the Private Sector Facility programmes (small- and medium-sized enterprises and mobilizing funds at scale) submitted and approved	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2	
<b>TOTAL</b>	<b>16/40</b>	<b>17/40</b>	

### SECTION 3: ADDITIONAL INFORMATION

**Please explain how this grant will help deliver on the country's readiness needs as identified above and build on institutions, processes or existing work already underway in the country (maximum 500 words)**

This Readiness proposal aims to address the Outcome "Project/programme preparation support, including for adaptation, to develop funding proposals" (Section 2.4.3).

This project is proposed to gather targeted information to strengthen and complement the establishment of a National Green Energy Fund (NGEF).

As stated in *Section 1.6 Brief Summary of the Request*, the establishment of the NGEF was approved by the Vanuatu Council of Ministers in April 2016. The NGEF is intended to serve as a tool for the Government of Vanuatu (GoV) to mobilize a significant pool of financial resources to meet the following objectives:

- (1) provide all households with access to affordable electricity generated from renewable energy sources;
- (2) promote and support the development of renewable energy in Vanuatu; and,
- (3) enable Vanuatu to make reasonable progress on energy efficiency improvements by 2030.

These objectives are in-line with the NDCs of Vanuatu to achieve 100% electrification for everyone, generated by renewable energy sources<sup>2</sup> and its target to achieve 100% renewable electricity production by 2030.

At the initial phase, NGEF is envisaged to facilitate

- (1) affordable electricity access investments, especially in rural areas (primarily through renewable energy sources and systems like solar systems, energy storage systems (ESS), biofuel based systems and hybrid systems);
- (2) renewable energy sourcing investments for businesses, especially in rural areas; and,
- (3) initiatives to encourage energy efficiency in electricity end-use and biomass.

Households, businesses and public institutions/communities will be eligible to receive support through the NGEF to progress on these objectives. As GoV's intention is to develop a financial mechanism that will be flexible and sustainable; thus, the NGEF will be open to supporting additional technology and investment approaches and instruments, and targeting different beneficiaries, as and when circumstances change.

GoV will manage the NGEF and allocate funding support based on pre-established and transparent processes. Consolidating different funding sources into a single fund will:

- (1) help avoiding overlaps and inconsistencies across existing initiatives;
- (2) improve transparency and good governance; and,
- (3) target and utilize existing available funds towards meeting the National Energy Roadmap (NERM) objectives and allow a long-term strategic view of how best to achieve the NERM targets.

The NGEF will take a long-term view focused on achieving sustainable results. This means that its activities should go beyond providing one-off support, to catalyse investments with lasting effect, by devoting resources to developing institutions, processes, and arrangements that ensure sustainability and transformational impact.

The requested Readiness support will play an important role in providing information on market conditions for solar PV and other renewable energy technologies for achieving energy access and increasing energy efficiency as well as gender/social aspects of market conditions, demand/supply and enable informed decision on the design and operationalization of NGEF. Further, the operationalization of the NGEF will create an enabling environment for development and implementation of numerous rural electrification, renewable energy and energy efficiency projects, including projects that may seek co-financing from GCF through full funding proposals.

<sup>2</sup> Republic of Vanuatu: Intended Nationally Determined Contribution (INDC)," UNFCCC, (2015):

<http://www4.unfccc.int/Submissions/INDC/Published%20Documents/Vanuatu/1/VANUATU%20%20INDC%20UNFCCC%20Submission.pdf>

**SECTION 4: BUDGET, PROCUREMENT, IMPLEMENTATION AND DISBURSEMENT**

OUTCOMES (same as in section 2)	ACTIVITIES (same as in section 2)	TOTAL COST (per activity)	COST CATEGORIES				EXPENDITURE AND IMPLEMENTATION SCHEDULE (add columns if >24 months)			
			Consultants	Travel	Workshops/ Trainings	Others	6m	12m	18m	24m
<b>Access to finance:</b> Structured dialogue between the NDA/Accredited Entities and the GCF Secretariat organized										
<b>Access to finance:</b>	<i>4.3 Project/programme preparation support, including for adaptation, to develop funding proposals provided</i>	USD 320,000	USD 275,000	USD 20,000	USD 5,000	USD 20,000 (GGGI staffing cost)				
<b>CONTINGENCY (UP TO 5%)</b>		USD 16,000	0	0	0					
<b>PROJECT MANAGEMENT COSTS (10%)</b>		USD 34,000	0	0	0					
<b>TOTAL</b>		USD 370,000	USD 275,000	USD 20,000	USD 5,000	USD 20,000				

**Procurement plan**

For goods or services to be procured/hired, list the items to be procured/hired (including consultants), the estimated cost of each item, and the procedure to be used (i.e. direct procurement, open tender, shopping, other and related thresholds). Please include the procurement plan for at least the first tranche of disbursement requested below.

Consultant hiring (Total USD 275,000 for max. 7 months, open tender), consisting the following activities;

- Market demand study
- RE technology feasibility study
- Market infrastructure and business model study

Travel (2 x USD 10,000 per trip): USD 20,000 (GGGI staff)

Workshop: USD 5,000 (direct contracting)

**Disbursement schedule**

Specify the proposed schedule for requesting disbursements from the GCF, including amounts and periodicity. For amounts requested, keep to multiples of USD 5,000, and for periodicity, specify whether it's quarterly, bi-annually or annually only.

The following is the monthly schedule for disbursement, requested in accordance for the timeline:

80% disbursement (at start of the project): USD 296,000

20% disbursement (at end of the project): USD 74,000

For details, please refer to attached timeline below:

Activity	Month							GGGI Payment Schedule		
	1	2	3	4	5	6	7	Milestone	Payment (%)	Total
Hiring Consultants										
Market Demand Study		\$15,000	\$22,500	\$37,500				Inception Report	20%	\$75,000
								Interim Report	30%	
								Final Report	50%	
Technical Feasibility Study			\$18,000	\$27,000	\$45,000			Inception Report	20%	\$90,000
								Interim Report	30%	
								Final Report	50%	
Business Model Study			\$22,000	\$33,000		\$55,000		Inception Report	20%	\$110,000
								Interim Report	30%	
								Final Report	50%	
Validation Workshop										
Consolidation of findings										
Planning next steps										

Payment Schedule										
GCF Payment	\$296,000							\$74,000		
GGGI Payments		\$15,000	\$62,500	\$97,500	\$45,000	\$55,000				\$275,000

**Additional information**

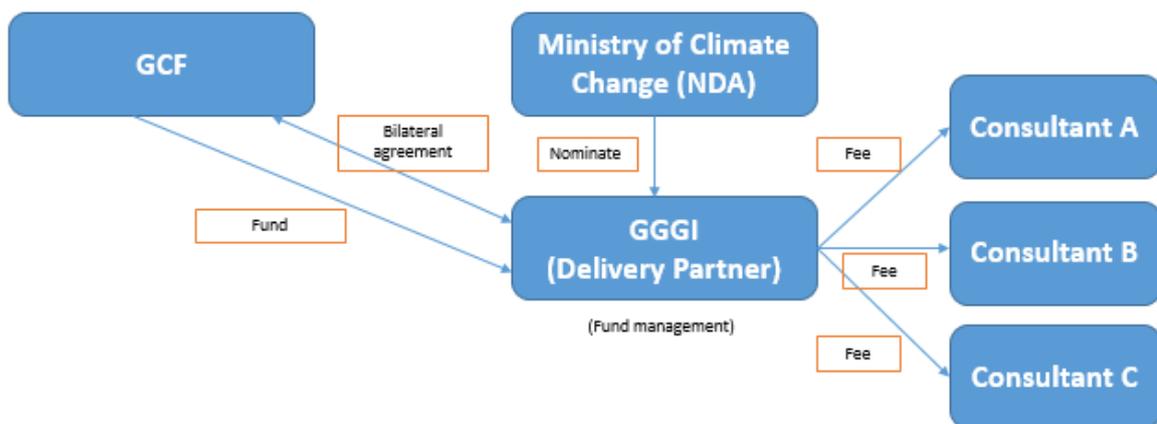
The staffing cost is for a GGGI HQ staff who will give technical assistance on RE technology feasibility study and Market infrastructure and business model study and a country team staff who will provide technical assistance on Market demand study.

**SECTION 5: IMPLEMENTATION ARRANGEMENTS AND OTHER INFORMATION**

Please attach an “implementation map” or describe how funds will be managed by the NDA/FP or delivery partner

If the entity implementing the readiness support is not an accredited entity of the GCF, please complete the [Financial Management Capacity Assessment \(FMCA\)](#) questionnaire and submit it with this proposal.

**implementation map**



**2016**

**Other relevant information**

This box provides an opportunity to include any important information you wish to bring to the attention of the GCF Secretariat, but did not have an opportunity to provide in the sections above.

The Government of Vanuatu (“GoV”) launched in 2013, and updated in 2016, the Vanuatu National Energy Roadmap (“NERM”), a strategy which focuses on the five key priorities: energy access, affordable energy, secure and reliable energy, sustainable energy, and green growth with measurable targets for the 2016 – 2030 period. The final target of the NERM is to increase the percentage of electricity generation from renewable sources to 100% by 2030. NGEF was introduced in NERM and the Government of Vanuatu officially requested GGGI to develop it in Feb/16 (see Request Letter attached).

Since then, GGGI conducted a series of activities such as a scoping study, institutional assessment and concept development activities, according to our NFV development standardized approach (see *Stage 3 Final Report* attached). The government validated GGGI’s “concept development” activities recently and agreed to move to the next stage of Designing the fund (see *Validation Letter of Ministry of Climate Change* and the *Request letter by The Department of Energy Ministry of Climate Change to GGGI* attached).

**Attachments;**

- 1) Request letter by The Department of Energy Ministry of Climate Change to GGGI (Feb/16)
- 2) Stage 3 Final report (Aug/16)
- 3) Validation Letter of Ministry of Climate Change (Oct/16)
- 4) Council of Ministers Decision on establishment of the NGEF (Apr/16)

A detailed activities and budget is given below.

ACTIVITIES (same as in section 2)	TOTAL COST (per activity)	COST CATEGORIES			
		Consultants	Travel	Workshops/ Trainings	Others
<b>Market demand study</b> <ul style="list-style-type: none"> <li>▪ Representative rural household surveys at selected individual islands to assess               <ul style="list-style-type: none"> <li>▪ Current and potential electricity demand and representative load curves with future projections to determine market size</li> <li>▪ Current and potential demand for energy efficiency (e.g. cook stoves, lighting)</li> <li>▪ Ability and willingness to pay for sustainable energy services</li> </ul> </li> <li>▪ Representative rural enterprises and cooperatives survey at selected individual islands to assess:               <ul style="list-style-type: none"> <li>▪ Potential of types and characteristics of productive enterprise loads which can be met</li> <li>▪ Potential of each enterprise to expand and/or to reach local/international markets through utilization of sustainable energy for production and/or provision of services</li> <li>▪ Ability and willingness to pay for energy services for productive use</li> </ul> </li> <li>▪ Preliminary assessment of current (and applicable) payment systems</li> </ul>	USD 85,000	USD 75,000	USD 10,000		

**2016**

<p><b>RE technology feasibility study</b></p> <ul style="list-style-type: none"> <li>▪ Techno-economic landscape mapping <ul style="list-style-type: none"> <li>○ Comprehensive assessment of current technologies to meet energy sourcing mix requirements of households (including firewood, fossil fuels like kerosene, candles, diesel, biofuels etc.).</li> <li>○ Comprehensive assessment on current cost (upfront and operational) for current technologies to meet energy sourcing mix requirements of households</li> </ul> </li> <li>▪ Technical feasibility for off-grid energy systems (Solar PV, ESS, hybrid system, biofuels etc.)</li> <li>▪ Minimum performance criteria of standardized modular PV systems appropriate for Vanuatu’s weather and climate conditions, including construction and installation requirements considering climatic conditions</li> <li>▪ Assessment of potential metering solutions for energy services</li> <li>▪ Preliminary assessment of RE technology deployment keeping in mind future grid extension plans and development scenarios</li> </ul>	USD 100,000	USD 90,000			USD 10,000 (GGGI’s staff)	
<p><b>Market infrastructure and business model study</b></p> <p>Supply chain analysis</p> <ul style="list-style-type: none"> <li>▪ Value chain analysis and comprehensive assessment to map solar PV system manufacturers, wholesalers, distribution suppliers and vendors</li> <li>▪ Distribution network and logistical analysis comprising of suppliers and vendors, including assessment of their logistical (and reverse logistical) capacity, business operations expansion capacity, financial requirements in form of debt and equity finance from the NGEF</li> <li>▪ Potential for capacity expansion of current suppliers and vendors’ business activities and network, contemplating their role as ‘nodes’ in the supply chain (for instance in “a logistics centre” and Operations &amp; Maintenance – O&amp;M services) to increase efficiency and effectiveness of supply chains by considering aspects like spare parts delivery and waste recycling</li> </ul> <p>NGEF Business model and Investment analysis</p> <ul style="list-style-type: none"> <li>▪ Preliminary assessment on off-grid energy services/products business models: <ol style="list-style-type: none"> <li>i. Assessment of different applicable off-grid business models (and potential synergies with other businesses/models like telecommunication services (cellular phone service providers), microfinance etc.)</li> <li>ii. Assessment of payment modalities for end consumer payment for</li> </ol> </li> </ul>	USD 135,000	USD 110,000	USD 10,000	USD 5,000	USD 10,000 (GGGI’s staff)	



**2016**

<p>sustainable energy services by rural population through (“Pay-As-You-Go”) cellular phone plans, microfinance/banking branches and other existing models.</p> <p>iii. Assessment of operations models to understand technical / manual solutions for remote control, monitoring and troubleshooting of assets</p> <ul style="list-style-type: none"> <li>▪ Mapping of potential financing requirements – debt and equity for the sector players across the value chain, with a view to accessing finance from the NGEF</li> <li>▪ Assessment of regulatory requirements and procedures for investments (potentially from NGEF)– debt and equity, into the energy sector</li> </ul>					
<b>CONTINGENCY (UP TO 5%)</b>	USD 16,000	0	0	0	
<b>PROJECT MANAGEMENT COSTS (10%)</b>	USD 33,600	0	0	0	
<b>TOTAL</b>	<b>USD 370,000</b>				