



## GEF-6 GEF SECRETARIAT REVIEW FOR FULL-SIZED/MEDIUM-SIZED PROJECTS THE GEF/LDCF/SCCF TRUST FUND

GEF ID:	9273		
Country/Region:	Papua New Guinea		
Project Title:	Facilitating Renewable Energy & Energy Efficiency Applications for Greenhouse Gas Emission Reduction (FREAGER)		
GEF Agency:	UNDP	GEF Agency Project ID:	5569 (UNDP)
Type of Trust Fund:	GEF Trust Fund	GEF Focal Area (s):	Climate Change
GEF-6 Focal Area/ LDCF/SCCF Objective (s):	CCM-1 Program 1;		
Anticipated Financing PPG:	\$100,000	Project Grant:	\$2,840,640
Co-financing:	\$24,760,000	Total Project Cost:	\$27,700,640
PIF Approval:	September 14, 2015	Council Approval/Expected:	October 21, 2015
CEO Endorsement/Approval		Expected Project Start Date:	
Program Manager:	Masako Ogawa	Agency Contact Person:	Manuel L. Soriano

PIF Review			
Review Criteria	Questions	Secretariat Comment	Agency Response
<b>Project Consistency</b>	1. Is the project aligned with the relevant GEF strategic objectives and results framework? <sup>1</sup>	MO August 6, 2015 Please change to CCM Object 1, Program 1, because most of the project cost will be used for policy and technology application, and component 3 is not eligible under Program 2.  MO August 13 2015 Comment cleared.	The PIF has been revised to reflect project alignment with climate change program strategy CC1: Program 1 since the proposed project covers development, demonstration and financing of low carbon (LC) technologies and mitigation options, including policies to support these.
	2. Is the project consistent with the	MO August 6, 2015	

<sup>1</sup> For BD projects: has the project explicitly articulated which Aichi Target(s) the project will help achieve and are SMART indicators identified, that will be used to track the project's contribution toward achieving the Aichi Target(s)?

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
	recipient country's national strategies and plans or reports and assessments under relevant conventions?	The project is in line with the second National Communication to the UNFCCC.	
<b>Project Design</b>	3. Does the PIF sufficiently indicate the drivers <sup>2</sup> of global environmental degradation, issues of sustainability, market transformation, scaling, and innovation?	<p>MO August 6, 2015</p> <p>The page 7 explains that there is policy barrier because there is no national energy policy, but on page 17, this project is in line with draft National Energy Plan. Please provide information of National Energy Plan, and clarify what barrier will be remained even this plan is finalized and implemented.</p> <p>Also please clarify what NEP stands for, National Energy Plan or National Energy Policy.</p> <p>Please include financial sectors as stakeholders, otherwise the financial scheme will not be properly developed and implemented.</p> <p>It proposes community based application of energy efficiency (EE) and renewable energy (RE) as innovation. Please describe this application in the main document, not in the footnote (e.g. no.14 on page 11).</p>	<p>Correction has been made in regards to what is actually being referred to in the PIF. It should be National Energy Policy (NEP) not national energy plan that should be stated in Part II, Sec. 6. There is a proposal to develop a national energy plan based on the NEP. There is currently a draft NEP (there are actually two versions, one with Department of Petroleum &amp; Energy (DPE) and the other with the Department of Public Enterprise that oversees state owned public enterprises such as PPL) and no official national energy plan. What is available is the PNG Mid term Development Plan 2011 2015 (MTDP) that consists, among others, a section on energy development. In that section of the MTDP it is stated that the general aim for energy development is for "all households to have access to a reliable and affordable energy supply, and sufficient power is generated and distributed to meet future energy requirements and demands." The target is to achieve 70% electrification by 2030, and to achieve this, the focus of the country is on expanding natural gas, hydro, and other RE based power generation capacity.</p>

<sup>2</sup> Need not apply to LDCF/SCCF projects.

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
		<p>MO August 13 2015 Comments cleared.</p>	<p>To come up with the national energy plan, the NEP has to be first clearly delineated and officially established and enforced. There is work that is ongoing on the drafting of the NEP. The proposed GEF project intends to build on such work to supplement and augment it and where appropriate enhance it. Based on information from the DPE, the project proponents think that the current work on developing the NEP can use additional support from the GEF to ensure that appropriate energy policies are formulated, recommended, approved and effectively enforced. While the current approach focuses on energy generation infrastructures, the proposed GEF project will address the policy issues that would make these energy generation assets support the achievement of broad improvement in living standards in the country. Among those that need to be enhanced are on: (a) energy regulatory framework; (b) energy development and utilization policies; and, (c) enforcement of proposed and existing energy policies and strategies. The remaining issues concerning the lack of capacity for the application of LC development procedures, standards, policies and implementing rules and regulations (IRRs) on the promotion and</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>incorporation of EE &amp; RE applications in city/town, province and district development planning and implementation, still have to be addressed. Furthermore, the related institutional issues on the effective implementation of the energy policies, and LC development standards, policies, and IRRs, including institutional mechanisms that integrate LC development with the socio economic, climate change and disaster management objectives of the country, will also have to be addressed.</p> <p>NEP stands for National Energy Policy. There is at the moment no national energy plan. The intention is to develop the national energy plan based on the NEP.</p> <p>Yes the financial sector is a key stakeholder of the project and will be involved in the design, establishment and operationalization of feasible financing models and schemes to facilitate financing of LC (e.g., EE and RE) development projects. The table in Part II, Sec. 2 has been revised to include the banks/financial institutions and their expected role in the preparation/design of this proposed project.</p> <p>The previous and current electrification</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>projects in the country are mainly infrastructure related and focus more on big capacity power generation projects that are either RE, or non RE based. Obviously, to meet the target of 70% electrification by 2030, more power generation capacity has to be installed. Also, to achieve the target of carbon neutrality in 2050, the utilization of available feasible renewable energy resources for power generation, and the application of feasible RE and EE technologies in the energy end use sectors are necessary. Past initiatives on the application of RE technologies are mainly on big size hydro, geothermal and biomass power generation applications funded by the GOPNG, donors and foreign investors. Because of the lack of investments in the maintenance of the infrastructures installed and in performing operational maintenance on existing power generation, transmission and distribution assets, the country (particularly the countryside) experience unreliable electricity supply and ultimately higher social and economic cost. On EE, previous initiatives have been on capacity building. But still up until now, the general levels of EE awareness and knowledge/skills on EE technology/technique applications among the energy end users are low.</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>This project will help facilitate, contribute to, lay the groundwork, and pave the way for, the achievement of the country's 2030 electrification target, and the 2050 carbon neutrality target, through more effective and tangible applications of RE based energy systems (for power and non power purposes) and EE technology applications in the end use sectors both in urban and rural areas of the country. In many districts (in a number provinces), there are available RE resources that can be tapped to reduce the utilization of existing diesel power generation systems. This is not currently being done mainly because of the relatively small system size, compared the typical power generation capacities that the PNG Power Ltd. (PPL) is interested in developing and operating. Many rural communities in the country are not electrified (electrification in PNG is currently below 20%) but there are available RE resources in many of these localities. Enabling the cost effective use of such resources utilizing financing from the government and from the private sector (e.g., public private partnerships, private sector investments, local government outsourcing, etc.) is among the strategies that the project will employ, and this is something novel in PNG. Another novel</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>idea is the implementation of tangible actions that are geared towards optimization of the use of energy (i.e., energy efficiency) in the energy end use sectors. This will not only reduce GHG emissions, but also contribute to the reduction of electricity demand and in so doing contribute to the reduction of the magnitude of overall power generation capacity (RE and non RE based) needed to meet current and future electricity demands.</p> <p>To further facilitate these innovative ideas, the following demonstrations of LC policy and technology applications will be considered for inclusion in the project: (1) Application of the integrated energy planning techniques for the benefit of the DPE; (2) Application of feasible community based RE energy systems for productive uses and household energy needs; (3) Application of EE technologies selected energy end use sectors such a public utilities, buildings, and in the transport sector; (4) Design, engineering and financing of feasible RE and EE technologies; and, (5) Piloting of specific policies and strategies for the application of RE and EE techniques, measures and practices.</p>
	4. Is the project designed with sound incremental reasoning?	MO August 6, 2015 Please explain why this GEF fund is request in addition to on going World	One of the components of the ongoing WB project is on the development of the NEP. The proposed project intends to

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
		<p>Bank project.</p> <p>MO August 13 2015 Comments cleared.</p>	<p>build on such work to supplement and augment it and where appropriate enhance it so that the much needed energy policies are approved and effectively enforced. Based on the initial assessments made, among those that need to be enhanced are on the following: (a) energy regulatory framework; (b) energy development and utilization policies; and, (c) enforcement of proposed and existing energy policies and strategies. The work that is currently being done on the development of the appropriate energy regulatory framework will be enhanced by addressing concerns regarding the needs for the application of LC development standards, policies and IRRs on the promotion and incorporation of EE &amp; RE applications in city/town, province and district development planning and implementation; and for easy to use guidance and reference documents on these subjects to district and provincial governments. The enhancements will also include the provision of supplementary information (e.g., policy researches, analyses and assessments) to the DPE on LC development and implementation mechanisms compatible to the PNG context. Considering the current activities of the ongoing energy policy development activities in the country, and building on these, the indicative</p>



## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>incremental activities on energy policy making are the development of the supporting guidance, rules and regulations and legislations; and the piloting and evaluation of the implementation of specific policies. On the enforcement of the proposed and existing energy policies, the indicative incremental activities are on the promotion of the proposed energy policies to get these approved and enforced, capacity building on the application and compliance, and tracking of the progress and impacts of energy policy implementation for purposes of potential future enhancements (if necessary). Additional incremental activities will be carried out focusing on the establishment and operationalization of the pertinent institutional framework for the implementation of LC development standards, policies, and IRRs, including institutional mechanisms that integrate LC development with the socio economic, climate change and disaster management objectives of the country.</p>
	<p>5. Are the components in Table B sound and sufficiently clear and appropriate to achieve project objectives and the GEBs?</p>	<p>MO August 6, 2015</p> <p>Overall; This project has many NAMA related elements. Please explain if the Government of Papua New Guinea would consider including NAMA</p>	<p>Agree. To date, the GOPNG through OCCD has only registered the country's focal point for NAMA. There has not been any further work on NAMA. Together with the assistance from this proposed project, the current process for developing the country's Intended</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
		<p>registration as one of the activities.</p> <p>Component 1; GEF does not support lobbying activity. Please revise. Please clarify who will implement this component, and please include the relevant stakeholders in this component. In the stakeholders table on page 15, neither Department of Petroleum and Electricity nor PNG Power Limited are responsible for policy and regulations. Also Provincial government seems not to participate in policy development and implementation. It concerns that the project will fail to implement the policy without their participation.</p> <p>Risk; Please revise mitigation action of No. 5 risk on policy as well.</p> <p>Component 2; Please explain what are commercial applications of EE and RE, and difference from community based application.</p> <p>Component 4; Please focus the awareness activity related with practical tools and schemes available for the public, so that the public will change behavior</p>	<p>Nationally Determined Contributions (INDC) is expected to help package the country's NAMAs that will be identified, developed, registered and later implemented. Some of the proposed activities on the identification and development of LC development projects (EE and RE) in Component 2 are intended to also assist in the speeding up the country's rather slow NAMA development work. These activities will also come up with potential NAMA projects that the country can consider to develop, prioritize, register and implement.</p> <p>Lobbying in this context means promoting, advocating and awareness raising for the purpose of having the proposed policies, standards and IRRs approved. The word has been changed if that does not sound proper to GEF now. Component 1 will be implemented with the Energy Division (ED) of the DPE as lead. The DPE is responsible for energy policy development; energy planning; data collection; energy advice to PNG Government including in areas of fuel prices, subsidies and electricity tariffs. Please note that the stakeholders table in Part II, Sec. 2 is for presenting the roles of each project stakeholder in the project design/preparation, i.e., how they will be engaged in project design/preparation.</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
		<p>after they participated the activities.</p> <p>GEB; Table F expected 4,795 kilotons of CO2 mitigated, but page 13 shows 6 to 6.5 Mtons. Please clarify. Also this number is relatively high comparing other CCM projects. Please explain how this is calculated.</p> <p>Knowledge Management; Please consider and include how the project will learn from other relevant project in LDCs and SIDS.</p> <p>MO August 13 2015 Comments cleared.</p>	<p>Hence, their individual roles are not stated. Nevertheless, here are the other stakeholders, with their specific mandates (not necessarily their role in the project design), that will be involved in the implementation of Component 1:</p> <ul style="list-style-type: none"> <li>• PNG Power Limited (PPL) Responsible for generation, transmission and distribution of power nationally, and; technical regulation of electricity provision;</li> <li>• Department of Environment and Conservation (DEC) Responsible for establishing environmental standards; conducting environmental impact assessments; coordination of GHG emission policies;</li> <li>• Independent Consumer and Competition Commission (ICCC) Responsible for setting electricity tariffs; fuel price control, and; awards power generation licenses;</li> <li>• Provincial and Local Level Governments Responsible for the implementation and enforcement of both national and local government policies, standards, rules and regulations, and in this context, those on energy and climate change mitigation related sustainable development aspects; and,</li> <li>• Other agencies, including but not limited to, PNG National Statistical Office, National Institute of Standards and Industrial Technology (NISIT) and</li> </ul>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>Industry Associations such as the PNG Chamber of Commerce and Industry.</p> <p>The roles/responsibilities of these stakeholders in the project implementation will be clearly defined during the project design stage. The policy related roles/responsibilities of Provincial/Local governments in the project design have been emphasized in the PIF.</p> <p>The word "lobbying" has been replaced with "promotional". Advocacy and promotional activities have been very effective in achieving the approval and enforcement of recommended policies, irrespective of these being GEF or non GEF projects.</p> <p>In the context of this project, commercial applications of EE and RE would include projects that are financed by the individual end user or owner; by an ESCO; or, by a bank/financial institution. Examples of commercial EE technology applications include projects financed (using equity and/or loans from banks) by an industrial plant or a commercial building and implemented by suitable engineering or architectural firms; or EE application projects designed, financed and implemented by ESCOs. Examples of commercial RE</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>applications include power generation projects financed (using equity and/or loans from banks) by an independent power producer; RE system projects (power or non power) financed (using equity and/or loans from banks) by an industrial facility or a commercial building and implemented by suitable engineering or architectural firms; or similar projects designed, financed and implemented by ESCOs.</p> <p>Community based application can either be commercial such as in the case of a private entrepreneur financed and operated RE based power generation and distribution system in a specific community/locality. This is basically a commercial business. Community based application can also be non commercial for a specific period of time like in government supported electrification programs in remote rural areas wherein the main aim of the program is social rather than commercial. The electricity services maybe free or subsidized at the start, but for sustainability reasons may gradually progress into something of a commercial business (run by the community, or by an entrepreneur in the community) especially when the social objective has been already achieved.</p> <p>For Component 4, the project proponents</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>agree to the comment that awareness raising activities should result in the change of behavior. The proposed program will focus on specific stakeholders that will play key roles in developing, implementing, operating and sustaining low carbon initiatives (e.g., EE and/or RE) in the country. The outputs and activities have been revised in line with the reviewer's suggestion on practical tools and schemes for the public to ensure the realization of improved awareness and attitude towards EE and RE applications in energy generation and energy end uses in the country.</p> <p>The CO2 emission reduction estimates are based on the historical annual CO2 emissions from the use of gas, liquid and solid fossil fuels in PNG from 2000 2011 (<a href="http://data.worldbank.org/country/papua-new-guinea">http://data.worldbank.org/country/papua new guinea</a>).</p> <p>The average annual CO2 emissions from that period was 4,366 ktons. The results of a trend analysis of these data show that the CO2 emissions by 2030 would be about 9,644 ktons/year. This is about the same as the lower bound value of the forecast CO2 emissions range of 10 to 14 Mtons/year by 2030 (Source: National Climate Compatible Development Management Policy Report of Office of Climate Change and</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>Development, Papua New Guinea). The estimates 6.0 to 6.5 Mtons stated in page 13 of the PIF are CO2 emissions, not CO2 emissions mitigated. This range of CO2 emissions is based on two cases involving the implementation of actions that will result in an average annual incremental CO2 emission reduction from fossil fuel combustion of about 20% (Case 1) and 25% (Case 2) during the period 2017 2030. This considers the trend projection that will result in about 10 Mtons/year CO2 emissions by 2030 as the baseline case. For Case 1, the result is an average annual CO2 emission of about to 6.5 Mtons, and for Case 2, the result is about 6.0 Mtons. The proposed project considers the conservative case of achieving an average 20% incremental reduction in annual CO2 emission. That translates to a total incremental CO2 mitigated (direct and indirect) of about 23,976 ktons during the period 2017 2030. Assuming 20% of this cumulative amount is directly attributable to the proposed project, the potential total incremental CO2 emissions mitigated would be 4,795 ktons. Yes, this amount is high compared to the other CCM projects in the Pacific because: (a) The fossil fuel consumption in the country is high (as shown in the above figure); and, (b) PNG is the Pacific island country (PIC) that has the</p>

## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
			<p>largest land area, population, amounts of indigenous energy resources, and number and volume of economic activities.</p> <p>Part II, Sec. 7 has been revised to include uptake of lessons learned and best practices on the application of low carbon development strategies and techniques and EE/RE technologies from other countries like those in Asia, the PICs and in other SIDS, as well as sharing of project results to the same. The results of the project activities (e.g., EE/RE technology applications) will also be disseminated to these other countries through the information exchange network that will be created and operated under the project.</p>
	6. Are socio-economic aspects, including relevant gender elements, indigenous people, and CSOs considered?	MO August 6 2015 Yes	
<b>Availability of Resources</b>	7. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply):		
	<ul style="list-style-type: none"> <li>• The STAR allocation?</li> </ul>	<p>MO August 6 2015 Yes. The requested amount is within STAR allocation.</p> <p>Please include table D, so that the amount is correctly followed.</p> <p>Please check co financing amount in Table A, B and C, and revise.</p>	<p>The filled in table has now been included in the revised PIF.</p> <p>The total co financing amount in Part I, Sec. A has been corrected to match with those stated in Secs B and C.</p>



## PIF Review

Review Criteria	Questions	Secretariat Comment	Agency Response
		MO August 13, 2015 Comments cleared.	
	<ul style="list-style-type: none"> <li>• The focal area allocation?</li> </ul>	NA	
	<ul style="list-style-type: none"> <li>• The LDCF under the principle of equitable access</li> </ul>	NA	
	<ul style="list-style-type: none"> <li>• The SCCF (Adaptation or Technology Transfer)?</li> </ul>	NA	
	<ul style="list-style-type: none"> <li>• Focal area set-aside?</li> </ul>	NA	
<b>Recommendations</b>	8. Is the PIF being recommended for clearance and PPG (if additional amount beyond the norm) justified?	MO August 6 2015 Not at this time. Please address comments in box 1, 3, 4, 5 and 7.  MO August 13 2015 All comments cleared. The program manager recommends CEO PIF clearance	
<b>Review Date</b>	Review	August 06, 2015	
	Additional Review (as necessary)	August 13, 2015	
	Additional Review (as necessary)		

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
<p><b>Project Design and Financing</b></p>	<p>1. If there are any changes from that presented in the PIF, have justifications been provided?</p>	<p>MO April 20 2017  (1) Please provide justification of output 4.4. Awareness building will be implemented under output 4.5 and it is not clear why materials for education sector (primary and high school) will address barriers.</p> <p>MO June 7, 2017  Comment cleared.</p>	<p>Both Output 4.4 (Designed RE and EE courses and course materials made available for the education sector) and Output 4.5 (Completed RE and EE multi-channel media promotion campaign in PNG) will contribute in meaningful and distinct ways to the realization of Outcome 4 (Improved awareness of, attitude towards, and information about renewable energy and energy efficiency applications in the energy generation and end-use sectors). While Output 4.5 focuses on contributing to the outcome via various media channels, Output 4.4 focuses on building awareness of, positive attitude towards, and information about RE and EE via the channel of the education sector. The justification of leveraging the education sector as a channel for awareness building and information dissemination is threefold:</p> <p>(1) Spreading awareness more broadly through society can be effectively achieved by including young people as one starting point. Based on experience around the world, efforts in the education sector have been shown to drive broader awareness in society. For example, at the primary and high school levels (which are referenced in the comment), it has been found in many countries such as in PNG that influencing the awareness of students on topics such as the environment or healthy eating is often an effective way to raise public awareness more generally. Students bring their learning home and influence their parents to adopt better practices.</p> <p>(2) Leveraging the education channel makes an investment in the future by raising awareness in the next generation. The awareness building referred to in Outcome 4 is expected broadly to</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>happen among the general public, so that project results will be leveraged and sustained. That is, the more that the public becomes aware of the potential of RE and EE for PNG, the more that various individuals and organizations will pay close attention to project results and replicate them on a wider scale across the country. And, the youth of the country (including students in tertiary education, students in high school, and students in primary school), are an important segment of the general public that the project intends to reach.</p> <p>(3) Leveraging the education sector at the tertiary level raises the information possessed by persons that may potentially work in the more specific areas promoted by the project, such as mini-hydro mini-grids, solar PV mini-grids, and energy audits. This aspect (tertiary education curricula) of Output 4.4, then, contributes to PNG's strengths in the specific areas of RE and EE promoted by the project demos. At present, while there are general technical courses in electrical engineering (at the University of Technology) and in electronics and instrumentation (at technical institutes) at the tertiary level in PNG, there is a lack of specific technical RE and EE course materials.</p> <p>The general barrier addressed by Component 4 is low level of awareness, and lack of information on RE and EE applications, in PNG. The more specific barrier that is</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>addressed with the delivery of Output 4.4 is the lack of awareness and information among the nation's youth and within the education sector about RE and EE applications in PNG, as well as lack of awareness about this, among families with students. This more specific barrier encompasses the concept of lack of awareness among the next generation that is currently in their primary and secondary education years, which will be leading PNG's business and government sectors in the future. It also encompasses the lack of knowledge among students in tertiary education who might otherwise contribute to RE and EE applications in the future. The ProDoc has been revised to raise these more specific barriers to be addressed by education sector initiatives (p. 17) and elaboration has also been added in the CER Doc regarding explanations of changes from the PIF (p. 49).</p>
	<p>2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?</p>	<p>MO April 20 2017            (1) Output 4.6: Please explain if it is feasible or viable to set up RE.EE system production facilities in PNG.            (2) Output 2A.3: Please explain how the information of costing will be updated, especially after the project. Please also explain if any negative impact of this cost information made available by the public institutions have been or will be considered and risk mitigation measures will be implemented.            (3) information dissemination: there</p>	<p>(1) OUTPUT 4.6            Based on findings during the PPG work about PNG's existing manufacturing sector, the Project Development Team (PDT) concluded that it is viable to set up production of certain components of RE and/or EE technology systems in the country. Domestic production of such components will contribute to the lowering of the overall cost of RE and EE technology system installations as compared to imported components. In general, it is expected that such production facilities will not be entirely new facilities, but be based on existing equipment fabrication companies. That is, it is</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
		<p>are several activities on information dissemination (e.g. output 2A.7, component 4). Please explain how they will be coordinated and avoid duplication.</p> <p>(4) Output 4.7: Please clarify who will operate web-site during and after the project. Please transfer the website to the responsible organization not at the end of the project but during the project, so that this organization will gain enough capacity to maintain.</p> <p>MO June 7, 2017 Comment cleared.</p>	<p>expected the existing production facilities of such companies will also be able to accommodate the manufacturing or fabrication of RE and EE technology products related to their current products. Their existing, related products ensure they have the needed skills to expand into the related RE and EE product areas, thus contributing to viability.</p> <p>While it is unlikely that full systems will be produced in PNG, in the short term, costs of RE and EE technology system installations in PNG can be reduced by the use of locally produced components. Identification of high potential products in this regard and manufacturers that have good potential to expand into the production of RE and EE parts will be part of Activity 4.6.1 and will require substantial work. PNG's significant manufacturing facilities, concentrated around the City of Lae, and to a lesser extent in the capital city of Port Moresby, suggest feasibility. The construction materials industry is growing due to the growth of the LNG sector in the country and could be relevant to these efforts. Capabilities in prefabricated steel building materials, which are significant, can be relevant to certain RE and EE technology system components. During the PPG exercise, the PDT identified the following existing industries in PNG as having potential for expansion into RE/EE technology system component manufacturing: (1) metal working and (2) machine parts fabricators. The ProDoc has been revised to highlight the feasibility of</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>domestic manufacturing of RE and EE components vis-à-vis PNG's existing manufacturing sector (p. 17); and such elaboration has also been added in the explanation of changes from the PIF in the CER Doc (p. 48). In addition to the existing manufacturing sector, the project will seek to leverage partnership with the University of Technology's Institute of Appropriate Technology to achieve domestic manufacturing of RE and EE products. While this center currently is not a product manufacturing facility, it has developed operational experience in RE and EE systems and is thus a good candidate for a feasible start-up manufacturing effort. Lastly, the feasibility of domestic manufacturing is expected to be increased soon due to market demand created by new proposed standards. At present, PNG's National Institute of Standards and Industrial Technology (NISIT) has formulated and technically cleared an initial group of standards on EE and RE. Once these standards are officially endorsed, they are expected to generate increased demand for relevant products.</p> <p>(2) OUTPUT 2A.3 Thank you for these important points, which have resulted in refinement of relevant sections of the ProDoc to reflect that the information generated by the project on "honest," best possible costing of RE mini-grid projects will be updated annually, both during project</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>implementation and after project close. This work will be carried out for both mini/micro-hydro mini-grids and solar PV mini-grids. The costing information will be maintained on the website set up by the project and also disseminated by print and online information channels of PNG's National Institute of Standards and Industrial Technology (NISIT). Papua New Guinea Power, Ltd. (PPL), which has set up a department responsible for RE, will take the lead in updating and maintaining the information gathered. This will be carried out by PPL in coordination with NISIT and CCDA. The risks associated with this pricing information are that negative factors may cause the cost estimates to either be too low and unrealistic, leading to installed systems that are either of poor or too high quality, thus protecting over-priced providers. To mitigate these risks, costing information will include both quality information and comparison to best system costing, e.g., as those in Australia. These points have been incorporated in the ProDoc's costing activities under Output 2A.3 (Activity 2A.3.1 and 2A.3.2 on page 32) and into the Risk Mitigation Measures in the ProDoc (page 52 and A-61). It is noted that the costing information will not be for the purpose of instituting mandatory price controls, but instead will be for the purpose of increasing transparency in the market. Thus, negative impact from price controls will not be an issue</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>in this case.</p> <p>(3)            Thank you for pointing out the potential of duplication in information dissemination activities. Based on this input, information dissemination aspects of a number of project activities have been clarified in the ProDoc, with location of revisions noted in the right column of this table. Here (and in Annex 1 to this response sheet) the project's approach to information generation and dissemination and coordination between relevant activities are explained.</p> <p>Information dissemination cuts across multiple project components and outputs. This is because the project components are arranged by barrier categories. As for the first three components: Component 1 is for removing policy barriers; Component 2 is for removing technical land cost barriers; and Component 3 is for removing financing barriers.</p> <p>Interventions in each of these three barrier categories are combinations of approaches like capacity building, demonstration, and information generation and dissemination.</p> <p>Component 4, focused on removing awareness and information barriers, brings much of the information generation work together, particularly through the project website, which will post all information products generated by the project. Yet, actual information generation and, in some cases, other forms of dissemination work are included in some of the</p>



## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>other components as needed. For example, monitoring and documentation of the project demos, as well as some dissemination of that documentation, is included in Component 2 along with the demos, which are focused on demonstrating technical and cost viability. As a second example, generation of information on financing opportunities for RE and EE in PNG is included in Component 3 along with other aspects related to removal of financing barriers. When information generation and dissemination work is included outside of Component 4, it is still brought together in Component 4 through the project website and, in some cases, the media work. In general, overlap among information dissemination outputs/ activities will be avoided by two main means: (1) Different information dissemination outputs will involve different types of information; and, (2) when an output other than the project website output involves dissemination, that dissemination will be through a channel other than the project website, such as hard copy or email distribution. Annex 1 to this response sheet lists the key information generation and dissemination outputs/activities of the project and explains linkages with other information related outputs/ activities and how coordination among such outputs/activities will be achieved.</p> <p>(4) Thank you for these important points, which</p>

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
			<p>have resulted in refinement of the ProDoc to reflect the following: Papua New Guinea Power, Ltd's (PPL's) department responsible for demand side management and its department responsible for renewable energy will jointly take over responsibilities for updating and maintaining the project website. They will further coordinate with PNG's Climate Change and Development Authority (CCDA) and its National Institute of Standards and Industrial Technology (NISIT) in updating and maintaining the website. The consultants recruited to design and update the website will consult closely with PPL, CCDA, and NISIT in their design and approach from the start of their work. Further, starting at the beginning of the fourth and last year of the project they will work closely with PPL staff and train them so that the PPL team can begin to take over responsibilities for updating and maintaining the website at that time. These points have been incorporated into the ProDoc's description of the relevant activity under Output 4.7, Activity 4.7.1 (see page 43).</p>
	3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?	MO April 20 2017 Yes.	
	4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to	MO April 20 2017 Yes.	

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
	enhance climate resilience)		
	5. Is co-financing confirmed and evidence provided?	<p>MO April 20 2017 Please provide co-financing letters of 4 local governments. If they will be confirmed during the project, please change the co-financing amount in Table A and B.</p> <p>MO June 7, 2017 Comment cleared.</p>	<p>Due to PNG currently being in the election process, the co-financing from the four district governments (two in Eastern Highlands Province and two in East Sepik Province) will only become available during project implementation. Thus, as suggested by the reviewer, the expected amounts from these district governments have been deleted from the proposed financial plan of the project. Amounts and text have been adjusted in the ProDoc (p. 2 and pp. 68-69). The total of this expected district government financing that will become available during implementation is USD 3.26 million. Thus, the fully confirmed co-financing amount is reduced in the documents from USD 28.02 million to USD 24.76 million and it is noted in the pertinent text and footnotes that the other USD 3.26 million is expected to become available during implementation. The fully confirmed co-financing of USD 24.76 million still substantially surpasses the PIF targeted co-financing of USD 17.6 million.</p>
	6. Are relevant tracking tools completed?	<p>MO April 20 2017 Yes.</p>	
	7. <i>Only for Non-Grant Instrument:</i> Has a reflow calendar been presented?	NA	
	8. Is the project coordinated with other related initiatives and national/regional plans in the	<p>MO April 20 2017 Yes.</p>	

## CEO endorsement Review

Review Criteria	Questions	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
	country or in the region?		
	9. Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?	MO April 20 2017 Yes.	
	10. Does the project have descriptions of a knowledge management plan?	MO April 20 2017 Yes.	
<b>Agency Responses</b>	11. Has the Agency adequately responded to comments at the PIF <sup>3</sup> stage from:		
	• GEFSEC	MO April 20 2017 Yes.	
	• STAP	MO April 20 2017 Yes.	
	• GEF Council	MO April 20 2017 Yes.	
	• Convention Secretariat	NA	
<b>Recommendation</b>	12. Is CEO endorsement recommended?	MO April 20 2017 Not at this time. Please address comments in box 1, 2 and 5.  MO June 7, 2017 All comments cleared. Program Manager recommends CEO endorsement.	
<b>Review Date</b>	Review	April 20, 2017	
	Additional Review (as necessary)		
	Additional Review (as necessary)		

<sup>3</sup> If it is a child project under a program, assess if the components of the child project align with the program criteria set for selection of child projects.