Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2017

1. Project Data

Summary project data			
GEF project ID		2108	
GEF Agency project ID		507694	
GEF Replenishment Phase		GEF-3	
Lead GEF Agency (include all for joint projects)		World Bank/IFC	
Project name		Philippines Sustainable Energy Finance Program	
Country/Countries		Philippines	
Region		Asia	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		OP5-Removal of Barriers to Energy Efficiency and Energy Conservation OP6-Promoting adoption of renewable energy by removing barriers/reducing implementation costs	
Executing agencies involved		International Finance Corporation (IFC)	
NGOs/CBOs involvement		NA	
Private sector involvement		As investors	
CEO Endorsement (FSP) /Approval date (MSP)		4/13/2009	
Effectiveness date / project start		7/1/2009	
Expected date of project completion (at start)		6/30/2015	
Actual date of project completion		6/30/2015	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0	0
	Co-financing	0	0
GEF Project Grant		5.3	5.3
Co-financing	IA own		
	Government		
	Other multi- /bi-laterals	28.13	
	Private sector	0.40	
	NGOs/CSOs		
Total GEF funding		5.3	5.3
Total Co-financing		28.53	UA
Total project funding (GEF grant(s) + co-financing)		33.83	UA
Terminal evaluation/review information			
TE completion date		March 24th,2017	
Author of TE		NA (Danish Energy Management & Esbensen, EPRD Office for Economic Policy and Regional Development Ltd, Preferred Energy Incorporated (PEI)	
TER completion date		April 30th, 2018	
TER prepared by		Molly Sohn	
TER peer review by (if GEF IEO review)		Neeraj Negi	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	Satisfactory	NR	-	Satisfactory
Sustainability of Outcomes		NR	-	Moderately Likely
M&E Design		NR	-	Moderately Satisfactory
M&E Implementation		NR	-	Satisfactory
Quality of Implementation		NR	-	UA
Quality of Execution		NR	-	UA
Quality of the Terminal Evaluation Report		NR	-	Satisfactory

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The program's global environmental objective is to "reduce the environmental burden of energy use" through the promotion of sustainable energy projects. (Request for CEO Endorsement, p.14)

3.2 Development Objectives of the project:

The program's development objective is "to contribute to market transformation through mobilization of private financial sector investment in sustainable energy projects in order to reduce GHG emissions, to improve energy security and economic development in the Philippines."(P.1 CEO Endorsement) The project aimed to strengthen the capacity of Financial Institutions (FIs) to develop and manage sustainable energy portfolios.

This development objective was to be accomplished through four project components:

- Providing Financial Institutions with tailored financial products targeted at encouraging banks to underwrite loans to sustainable energy projects
- Providing Advisory Services for Financial Institutions
- Providing Advisory Services for Intermediaries
- Providing Advisory Services on Market Enabling Environment

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

There were no changes in the project design.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: Satisfactory

The program is relevant to the GEF Climate Change Operational Program 1: Promoting Energy Efficiency in Residential and Commercial Buildings, Operational Program 2: Promoting Energy Efficiency in the Industrial Sector, Operational Program 3: Promoting Market Approaches for Renewable Energy, and Operational Program 4: Promoting Sustainable Energy Production from Biomass, as well as the Climate Change focal area's overarching goal to support market transformation outcomes that contribute to GHG emissions reduction and avoidance.

The program is also consistent with the Philippines government policy to achieve energy independence by increasing the use of indigenous and renewable energy resources, increasing the use of alternative fuels, and enhancing energy efficiency and conservation programs. This program also supports the Electricity Power Industry Reform Act (EPIRA), enacted by the government in 2001 to open industry for greater competition and increase private sector participation.

4.2 **Effectiveness**	Rating: Satisfactory

The TE does not provide a rating for effectiveness. The evaluation notes that the portfolio of renewable energy and energy efficiency projects supported by participating Financial Institutions has been increased as targeted, although the potential for energy efficiency investments could be further explored. Targets for three of the four project components appear to have been met, while targets for the project's third component, providing support to intermediaries such as technology providers and clients, was only 10% achieved. Impact indicators for which there are data were all either met or far exceeded. The terminal evaluation estimates the value of aggregate private sector savings from the changes recommended and implemented by the project at 486.2 million US$, compared to a target of 41.6 million US$. The terminal evaluation estimates GHG emissions reduction to be 2.08 million metric tons per year – almost 3.5 times the target. Energy directly saved was 188,292 MWh/year (versus a target of 77,526) and renewable energy directly produced was 3.8 million mwh/year (versus a target of 350,000). Although one project component underperformed -addressing regulation and the non-participation of other important Financial Institutions-better than expected performance on other components balances the overall performance. Therefore, this TER rates effectiveness as Satisfactory.

The project's first two components, providing financial institutions with tailored financial products targeted at encouraging banks to underwrite loans to sustainable energy projects, and providing advisory services for financial institutions, appear to have been combined in the terminal evaluation. The project exceeded all three targets under this component, with 193 projects identified to received

financing, with SEF loans disbursed to all (out of a target of 80 for both projects and loans). The value of loans disbursed was 880 million US$, far surpassing the target of 120 million US$.

The project's third component was providing advisory services for intermediaries, such as technology providers and clients. 10 clients received training, out of a target of 100. Thus this target was only 10% achieved.

The project's third component was addressing the market enabling environment through market awareness and regulatory advocacy. Both targets under this component were achieved, with 3 entities implementing recommended changes, and 2 recommended procedures/firm level policies/practices were improved or eliminated.

4.3 **Efficiency**	Rating: Satisfactory

The TE does not rate efficiency but does note that resources were managed efficiently. Based on the evidence provided this TER rates efficiency as satisfactory. As staff supporting the program were reduced, the number of loans and loan amounts rose, showing that the program became more efficient with time. The midterm evaluation found that value for money of the program was improved after two additional banks were added to receive support from the program. Additionally, the costs of administration and technical assistance for the program came in below budgeted costs, at US$1.39 per ton of GHG emission reductions, compared to a similar program in Central and Eastern Europe which assessed costs of administration and technical assistance at US$ 2.5 per ton of CO2 reduced.

4.4 **Sustainability**	Rating: Moderately Likely

The TE does not provide a rating for sustainability, but notes that the products offered during the program period are likely to be continued, as the market is now established with competitive returns on investments. However, the TE also notes threats to sustainability of program benefits due to sociopolitical, institutional, and environmental factors, including further work needed in developing energy management expertise, need for more incentives and regulation, and environmental risks including climate change. Given the likelihood that the established market will continue, even with risks present which need to be addressed, this TER rates likelihood of sustainability of benefits as moderately likely. Below is an assessment of financial, sociopolitical, institutional and environmental risks to sustainability.

Financial: No financial risks to sustainability are noted. Returns on investment in the market for energy efficiency investments are comparable to other product portfolios.

Sociopolitical: The lack of energy management expertise is thus a sociopolitical risk to sustainability. Despite this risk and the further work to be done, the TE notes that a substantial staff force now has competencies in market and risk assessment, and projected returns, and that banks other than those supported by the program are entering the market.

Institutional Framework and Governance: Some risks related to institutional framework and governance are noted. The TE notes weaknesses in the level of expertise in renewable energy and energy efficiency

within the private sector, which has not been sufficiently developed by the project. A lack of incentives for energy efficiency, unpredictability of changes to the relevant policy framework, and an absence of regulations on Energy Service Companies (ESCOs) are all noted as institutional risks to sustainability of project results. However, a new National Green Building Code for larger buildings has spurred activities related to energy efficiency. Additionally, the introduction of minimum energy performance standards have promoted energy efficiency measures as well. These are positive steps towards sustainability of program results.

Environmental: Climate change is noted as a risk to continuation of benefits after program completion.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

There was no information on project co-financing at completion.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

There were no delays or extensions reported.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The project built off a prior IFC project, and was in line with the Philippine Development Plan, and the Philippine Energy Sector's Reform Agenda. Government officials from the DOE, ERC, and other government agencies participated in the program as speakers in conferences directed at giving banks and clients a better understanding of government regulations. The TE notes that the program undertook efforts to create synergies with government agencies, though they did not materialize, partly because of a decision to focus most activities on providing assistance to Financial Institutions.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: Moderately Satisfactory

The terminal evaluation does not rate M&E Design at entry. Based on a review of the project appraisal document, this TER rates M&E Design as moderately satisfactory. The project appraisal document includes key performance indicators that are measurable and relevant to the program, along with a data collection methodology. The project appraisal document notes that IFC will prepare a separate M&E budget.

6.2 **M&E Implementation**	Rating: Satisfactory

The TE notes that the M&E system, including internal output targets and data collection, was appropriate and well managed, and that the use of the Climate Assessment for FI Investment (CAFI) tool allowed for the collection of consistent and reliable data. According to the program team, data gathered from the banks have undergone strict quality assurance. Although the terminal evaluation does not provide information on whether a separate budget was provided for M&E activities, it does not indicate shortage of funds for M&E activities either. Based on the evidence presented this TER rates M&E Implementation as satisfactory.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: UA

No rating or assessment of quality of implementation is provided. Therefore this TER is unable to assess quality of project implementation.

7.2 **Quality of Project Execution**	Rating: UA

No rating or assessment of quality of execution is provided. Therefore this TER is unable to assess quality of project execution.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case

and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

According to the TE, the project resulted in 188,292 megawatts per year of energy saved, 3.83 million megawatts per year of renewable energy produced, and a 2.08 million metric tons/year reduction in CO2 emissions. (TE p.36)

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The value of financing facilitated by the provided advisory services is estimated to be roughly 3 billion US$. The value of aggregate private sector savings from the recommended changes is estimated at 486.2 million US$. (TE p.36)

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. “Capacities” include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. “Governance” refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

Capacities within the four participating banks have been enhanced, as before the project the banks were not engaged with renewable energy and energy efficiency projects, and now 193 project loans were financed with over 400 projects in the pipeline. Two of the four banks have developed functioning SE programs. (TE p.36)

b) Governance

During the program, a new National Green Building Code was put into place for larger buildings, and has spurred activities related to energy efficiency. Additionally, the introduction of minimum energy performance standards have promoted energy efficiency measures as well. These are positive steps towards sustainability of program results, though it is not clear from the TE if they came about as a result of the program. (TE p.XI)

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

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8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The TE notes that some banks which were not supported by the project were entering into the renewable energy and energy efficiency markets.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

A summary of lessons learned is provided below:

Advisory Services have proved their additional value in advising project developers During the course of evaluating projects, the sustainable energy finance (???) team inevitably advised the developers as well as banks also because they had to make sure that the projects presented by developers would meet the bank's requirements. The advisory services (?)has therefore proved its additional value in advising project developers, who have then made decisions to self-fund some projects and borrow for others.
Having a champion within the organization helps to push projects. It can be difficult to put the financial products into practical and widespread use. A major challenge is the high cost of outreach/infrastructure for after-sales support.
Risk Sharing Facility has not substantially altered the lending practices of banks It does appear that SEF II has not substantially altered the lending practices of the banks. However, there are some instances of revenues from financial institutions being taken into account in making lending decisions. Particularly for smaller project developers, this is important. It is, however, constrained by the “first come, first served” rules of government and delays in payment, which may reach a year.
Caution needed in using non-verified climate impact figures There are impressive figures quoted for GHG reductions, which follow logically from the high level of lending. Facilitating lending is a crucial factor in making these impacts. However, there must remain some caution over the use of these figures because of the lack of verification procedures.
System for having ex post verification of reduced GHG emmisions must be in place The lesson to be learned in this area is to have a system that carries out ex post verification of reduced GHG emissions. The IFC has a guideline for monitoring GHG emissions of a project upon implementation; this needs to be put into practice. In this case, figures for climate change impact are unreliable as they were not measured ex-post

9.2 Briefly describe the recommendations given in the terminal evaluation.

Below are the recommendations included in the terminal evaluation:
1. .There should be a larger priority on energy efficiency projects including the creation of new financial products: a. **Differentiated RSF pricing.**. If the Risk Sharing Facility policy allows it, a preferential Risk Sharing Facility pricing for large Energy Efficiency loans, would help Financial Institution's perception of Energy Efficiency projects as less risk.

2. Regain emphasis on market awareness and regulatory improvement. More Energy Efficiency standards are needed to ensure energy efficiency and saving is promoted. a. Regain emphasis on the Phils SEF II component on ***assistance in regulatory improvement to facilitate implementation of sustainable energy projects***. A future SEF should reinforce the initial emphasis on taking "a convening role for regulatory improvement and participate or lead market awareness" since this would help expedite completion of the necessary policy measures to address persisting barriers.

b. SEF as a program needs engagement with stakeholders other than the FIs to be able to strengthen market presence and drive businesses to the banks. **Networking and collaboration with other donors and stakeholders, through the Energy Efficiency forum organized with ECCP and associated workshops,** can facilitate the work of SEF towards achieving not only market awareness but also regulatory improvement. Relationships with other donors can be reinforced through events like the regular EE forum organized with ECCP, which can introduce donor panels on SE financing.

3. Further develop local financing markets by including second-tier banks. The inclusion of smaller FIs may indeed help developing and catalyzing local financing markets for SE projects. a. **Help increase expertise through provision of AS.** A future SEF may examine ways of reducing the smaller banks' transaction costs by increasing their level of expertise through the advisory services. The SEF Team should promote the benefits of signing a 'normal' AS agreement through the substantial additional business that existing FI clients have reached. A 'SEF Light' agreement can be envisaged to allow smaller banks ensure the costs of the AS, but this 'SEF Light' should reflect the lessons learnt during Phils SEF II: the FI core team needs to devote a substantial amount of time to the SEF work, and the SEF Team or SE consultants should have a role in developing the FIs pipeline.

b. **The portfolio approach has already proved successful** and may make the processing of the RSF when needed, easier to face for the smaller FIs, as it has for the large existing SEF clients. Taking a portfolio approach to risk would enable a few high-risk projects to be supported by smaller banks.

c. This portfolio approach would enable **products to be developed** through mobile banking and micro-finance loans, which have higher transaction costs per unit lend than larger loans. Financial provision at this level may be necessary to develop the market to the next stage and to reach those sections of the population where energy poverty is prevalent.

4. Expand coverage to smaller project developers. The smaller developers are often those serving the poorer communities and those presenting innovative ideas. Because of the collateral requirements and the inevitably higher transaction costs, these developers have not received attention under Phils SEF II. a. **Partnership agreements with project developers.** Smaller RE projects may most directly benefit poorer communities, which would be in line with the WBG's goal of supporting the Philippines in attaining poverty reduction and inclusive growth. Whereas SEF is not in a position to provide grants to small community based projects, SEF can establish partnership agreements with creditworthy private sector project developers extending assistance to develop a portfolio of feasible RE projects.

b. The partnership should include a **capacity building element**, whereby people are trained to apply EE and RE principles in their local environment. This would involve some short training courses for stakeholders and potential local experts. Existing training material would provide a good basis for this development.

c. **Extend field of RE projects.** Develop new FI products in collaboration with the FIs to serve new types of RE projects, such as RE hybrids, mini-grids and projects, which could be developed to service the more rural population when the business case is sufficiently strong.

d. **Consider development of an Equity funding instrument.** Consider the development of an instrument to provide funding for small/ medium project developers that need to raise equity. These could include ESCOs who need a fund for the development that fall between venture capital requirements and normal bank loans.

5. Monitoring and verification of ex-post project achievements should be reinforced.

6. The **GEF Tracking Tool Requirements** specify 'Results at Terminal Evaluation', an 'ex post' requirement. The Tool requires information on energy capacity and production, lifetime direct post-project GHG emissions avoided and lifetime indirect GHG emissions avoided. To fulfill these requirements it is recommended to: a. All developers are requested to provide 'Results at terminal evaluation' specified by the Tracking Tool. Carry out a **telephone or email survey of all projects** asking for the basic information of generating capacity, energy generated and saved[43].

b. Carry out a **structured 10% on site survey of projects**, i.e. 20 projects, structured to be representative by technology and size, to capture information on outcomes. In future, such sample monitoring should be standard practice and require access by the monitors to the clients to get this information. Such a survey would enable data to be collected for indicators 4, 5, 6 and 7.

In future projects, such sample monitoring should be standard practice.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF IEO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The report contained an assessment of outcomes and impacts and provided consistent evidence to support ratings	**Satisfactory**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is internally consistent, and evidence is complete and convincing. No ratings are provided, and some dimensions such as quality of implementation and execution are not addressed.	**Moderately Satisfactory**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The project provides a sufficient description of likelihood of sustainability of benefits.	**Satisfactory**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	Lessons learned and recommendations are complete and extensive.	**Satisfactory**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	No information on co-financing is provided, though some discussion of costs per component is provided.	**Moderately Unsatisfactory**
Assess the quality of the report's evaluation of project M&E systems:	The reports evaluation of the project M&E system is sufficient.	**Satisfactory**
Overall TE Rating		**Satisfactory**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).