GEF IEO Terminal Evaluation Review form (retrofitting of APR2004 cohort)

This form is for retrofitting of the TERs prepared for APR2004. While several topics covered in this form had already been covered in the earlier form, this revised form adds several other performance and impact related concerns.

1. Project Data

Summary project data			
GEF project ID		19	
GEF Agency project ID		64444	
GEF Replenishment Phase		GEF - 2	
Lead GEF Agency (include all for joint projects)		World Bank	
Project name		Concentrating Solar Power for Africa (CSP-Africa)	
Country/Countries		South Africa	
Region		Africa	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		7 – Reducing the long-term costs of low GHG-emitting energy technologies	
Executing agencies involved		Eskom (South Africa's energy utility company)	
NGOs/CBOs involvement		Not involved	
Private sector involvement		Through consultation	
CEO Endorsement (FSP) /Approval date (MSP)		July 1999	
Effectiveness date / project start		July 2000	
Expected date of project completion (at start)		March 2001	
Actual date of project completion		May 2001	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding		
	Co-financing		
GEF Project Grant		0.230	0.175
Co-financing	IA/EA own		
	Government		
	Other*		
Total GEF funding		0.230	0.175
Total Co-financing		0.180	0.110
Total project funding (GEF grant(s) + co-financing)		0.410	0.285
Terminal evaluation/review information			
TE completion date		May 2001	
TE submission date			
Author of TE			
Original GEF IEO TER (2004) preparer		Baastel	
Original GEF IEO TER (2004) reviewer		Siv Tokle	
Revised TER (2014) completion date		June 2014	
Revised TER (2014) prepared by		Joshua Schneck	
TER GEF IEO peer review (2014)		Neeraj Negi	

*Includes contributions mobilized for the project from other multilateral agencies, bilateral development, cooperation agencies, NGOs, the private sector, and beneficiaries.

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF EO Review
Project Outcomes	N/R	N/R	N/R	S
Sustainability of Outcomes	N/R	N/R	N/R	U/A
M&E Design	N/R	N/R	N/R	MS
M&E Implementation	N/R	N/R	N/R	U/A
Quality of Implementation	N/R	N/R	N/R	U/A
Quality of Execution	N/R	N/R	N/R	U/A
Quality of the Terminal Evaluation Report	-	-	N/R	U

3. Project Objectives

3.1 Global Environmental Objectives of the project:

As stated in the Project Brief (PB), the Global Environmental Objectives of this project were to reduce emissions of greenhouse gases (GHGs) by increasing and improving understanding about environmentally sustainable approaches to producing electric power. Specifically, the project is focused on assessing the viability of using concentrated solar power technology for power generation in South Africa, as well as in the larger Southern African region. According to the PB, South Africa, the region's largest economy, relies upon coal-fired plants to produce over 90% of its electricity, while the Southern African region as a whole relies upon wood fuel to meet around 75% of the total demand for energy. Utilization of coal for power generation releases the highest amount of GHG/energy unit among conventional fossil fuels. Use of wood fuel for power generation, while not as GHG-intensive as coal, can result in a number of other local environmental problems, some of which are noted in the PB and include depletion of forest resources, soil degradation, and health hazards. While not discussed in the PB, it is likely that expansion of electric power in the southern African region would, under business-as-usual, result in increased reliance upon conventional fossil fuels, thus further contributing to climate change.

3.2 Development Objectives of the project:

As stated in the PB, the development objectives of the project are to evaluate the viability of introducing concentrated solar power (CSP) technology for use in power generation in Southern Africa. This was to be accomplished by producing a study report with the following three objectives:

1. Evaluate a broad range of CSP technology options with regards to their current and future potential in the Southern African region.
2. Identify preferred systems for implementation in Southern Africa during the coming two decades.
3. Identify specific constraints that would need to be addressed to attain a sustainable deployment of CSP in South and Southern Africa.

To achieve the project's stated objectives, the PB defines the following seven activities:

1. Evaluation of CEP options according to certain criteria;
2. Reference site identified to provide information for technology assessment;
3. Conceptual designs for promising technologies produced;
4. Performance figures for simulated plant operation generated;
5. Capital cost estimates, O&M figures and life-cycle costs calculated. The environmental and social impacts on the region, due to implementation of CEP technologies, will be assessed;
6. Evaluation of the viability of CSP implementation;
7. Final report, presentations and publications.

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

No changes to the global environmental objectives, development objectives, or other activities are reported in the TE to have occurred in during implementation.

4. GEF EO 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 project is relevant to both South Africa and the GEF. As stated in the PB, the study support's South Africa's commitment to the UN Framework Convention on Climate Change, which South Africa ratified in 1997. Furthermore, the PB notes that the study's objectives are in-line with the South African Government's policy on renewable energy, as stated in the *White Paper on the Energy Policy of the Republic of South Africa 1999.* For the GEF, the project's targeted research is aligned with Operational Program 7 – Reducing the long-term costs of low greenhouse gas-emitting energy technologies – as the project seeks to increase and improve knowledge on the viability of using low GHG technology for power generation in the South African region.

4.2 **Effectiveness**	Rating: **Satisfactory**

As assessed in the TE, the project was effective in meeting all its stated objectives, although at the time of the TE a final report had yet to be released as the consultant hired was still addressing issues highlighted in a March 2001 stakeholder meeting. The TE does not provide an assessment of the quality of the draft report, except to say that a peer review by CEP experts outside of the project team was conducted, and the report has been accepted by Eskom management as called for in the PB. TE also notes that according to the task manager, "the project was successful in that it produced a full evaluation of the prospects for CSP power generation in South Africa" (TE, pg 3).

Progress is further detailed under the seven project activities defined in the PB:

1. *Evaluation of CEP options according to certain criteria* – TE states that two promising near-term technology options were identified.
2. *Reference site identified to provide information for technology assessment* - Upington, South Africa was identified and the required information was obtained and processed.
3. *Conceptual designs for promising technologies* – TE states that designs based on current state-of-the-art components able to meet the region's dispatch requirements were created.
4. *Performance figures for simulated plant operation* – TE states that the operation of 140 different plant designs was simulated and evaluated using the international standard for modeling and assessment software.
5. *Capital cost estimates, O&M figures and life-cycle costs calculated. The environmental and social impacts on the region, due to implementation of CEP technologies, will be assessed* – TE states that through consultation with manufacturer and suppliers, accurate capital cost estimates were determined, and life-cycle costs for the plant designs were calculated. TE also states that the environmental and social impacts were gauged for the reference site and area chosen, although no details are provided in the TE on what the findings are. TE states that since other regional sites would be reasonable similar to the reference area, impacts would be transferrable to other sites.
6. *Evaluation of the viability of CSP implementation* – The viability of CSP power plants was assessed in terms of the costs of operating the system, the cost of the electricity produced over the life of the plant, and the technical viability to dispatch power as required by regional usage patterns. TE states that findings from the report demonstrated that CSP "does not offer any possibility of being a baseload option for the region...however, the results show that CSP technologies can find a niche application as a peak power option, if thermal storage is incorporated" (TE, pg 2).
7. *Final report, presentations and publications* – According to the TE, study results have been presented at three forums: (1) internally to Eskom line groups and management; (2) to the South African government and other electricity supply industry stakeholders (including the World Bank); and (3) at the 60th meeting of the Executive Committee of the International Energy Agency's program on solar power and chemical energy systems (SolarPACES), held in

Cuernavaca Mexico in May 2001. TE states that the final report is currently being compiled for submission to Eskom management, following submission of a draft report and request for some revisions by the Consultant hired to produce the report.

4.3 **Efficiency**	Rating: **Moderately Satisfactory**

TE provides very limited information that may be used to gauge project efficiency. TE states that no technical problems were experienced during completion of the project. At the same time, TE notes two issues that occurred during project implementation resulting in some delay in funds flow. TE states that "extensive" delays within the World Bank's South African country office on finalizing the grant agreement letter resulted in the project being 50% completed before the grant was available for the project. In addition, there were some issues with the executing agency (Eskom) not providing timely account information to the WB that delayed transfer of funds to the executing agency. The project was completed with little delay (2 months after expected project closure) and came in 30% under budget ($285k at completion compared to $410k expected budget in the PB). However, no explanation is given for why the project was completed under budget. It is likely that completion of some of the planned activities of the project even before the project started could be one of the reasons for it.

4.4 **Sustainability**	Rating: **Unable to Assess**

TE does not adequately access sustainability of project outcomes. TE states that based on the project's report, Eskom has confirmed their interest in proceeding with CSP project development, deciding to finance a detailed design of a CSP plant or plants (not clear). TE also states that this utility has expressed interest in seeking additional GEF support for a CSP investment. However, no assessment is provided in the TE on the degree to which study finding may be relevant to countries other than South Africa, or whether dissemination of study findings is expected to continue (report does not appear to be assessable on internet or on WB site (Joshua Schneck, GEF IEO, 6/23/2014 search)), or how effective dissemination of study findings were, or whether Eskom has the resources to finance a CSP plant on its own. There is also the issue – and this may explain the inability to locate the study report – that Eskom may have wished to withhold distribution of the report if it was found to contain proprietary information. In this case, Eskom was to publish a summary of the study in a least one external conference forum and a journal publication or equivalent (PB, pg 7). It is not clear from the TE whether or not this occurred.

Due to the limited information available in the TE and lack of any PIR, it is not possible to provide a rating on sustainability of outcomes.

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?

TE provides no information on the impact/importance of co-financing to the project or sustainability of project outcomes, nor why realized co-financing ($110k) was less than expected co-financing ($180k). It could be the case that this may be due to completion of some of the planned project activities before the project started. However, whether or not this is the case is not clear.

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?

While the project was completed largely on time (closed 2 months later than expected date), the TE does note some internal issues that caused delay in funds flow. These include "extensive" delays within the World Bank's South African country office on finalizing the grant agreement letter, which resulted in the project being 50% completed before the grant was available for the project. In addition, there were some issues with the executing agency (Eskom) not providing timely account information to the WB that delayed transfer of funds to the executing agency. TE provides no information on whether these delays affected project outcomes or sustainability in any way.

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:

TE provides no assessment on country ownership of the project. The project was executed by South Africa's sole electric utility provider, Eskom, and Eskom has expressed interest in building off of the project's findings with subsequent investment. However, no information is provided that would allow for an assessment of country ownership beyond this project stakeholder.

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**

Project had a simple but largely sufficient M&E design for a targeted research study. A single indicator of project performance was provided in the PB: *completion of final report with acceptance by Eskom management and peer review by external experts and relevant agencies* (PB, pg 2). Responsibilities for project M&E were defined in the PB. A separate, dedicated budget line for M&E was not provided in the PB, but rather was part of the budget for overall project management and administration. The M&E system could have been strengthened if performance indicators were provided for each of the seven tasks defined in the PB. So for example, for task 5, *Economic, environmental and social impact evaluation*, performance indicators could be provided that clearly define the elements of a high-quality evaluation, including perhaps the scope of the evaluation (what countries/markets), and the factors included in the analysis (i.e., impacts on health, fuel consumption, labor markets, etc.). At the same time, the narrative text describing each of the project activities does give a good sense of what is expected from each activity grouping.

6.2 **M&E Implementation**	Rating: **U/A**

No information in the TE is provided on the quality of M&E implementation that would allow for a TER rating on M&E implementation.

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: **U/A**

No information in the TE is provided on the quality of Project Implementation that would allow for a TER rating on Project Implementation.

7.2 **Quality of Project Execution**	Rating: **U/A**

No information in the TE is provided on the quality of Project Execution that would allow for a TER rating on Project Execution.

8. Assessment of Project Impacts

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.

No changes in environmental stress or status are reported in the TE to have occurred by the end of the project. Project was a targeted research study with no expected short-term environmental impacts.

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.

No changes in human well-being are reported in the TE to have occurred by the end of the project.

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 – project increased the knowledge and awareness of the viability of using low-GHG CSP technology for power generation in Southern Africa. Stakeholders that benefitted/were exposed to this knowledge include the project's executing agency (Eskom – South Africa's sole utility provider), as well as those exposed to the project findings through presentations at two forums: (1) to the South African government and other electricity supply industry stakeholders (including the World Bank); and (2) at the 60th meeting of the Executive Committee of the International Energy Agency's program on solar power and chemical energy systems (SolarPACES), held in Cuernavaca Mexico in May 2001.

b) Governance – no changes in governance are reported to have occurred as a result of the project.

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.

No unintended impacts are reported to have occurred as a result of the project.

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.

No project initiatives have been taken to scale. Project was a targeted research study that may lead to medium- or long-term changes/increases in investment in CSP technology. However, at the present time, the technology is not cost competitive with conventional fossil fuels if the cost of associated pollution is not factored in. Adoption of CSP technology will therefor likely depend upon the existence of subsidies/mandates that provide incentives for investment. TE does not discuss these factors.

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.

TE provides the following lesson:

- Co-ordinate with all interested and affected parties (internal and external), to avoid misunderstandings.

9.2 Briefly describe the recommendations given in the terminal evaluation.

TE provides no recommendations.

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 EO 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?	While TE does report on the extent to which project activities occurred, and that the project's principle objective – producing a report that is accepted by Eskom and peer reviewed – was achieved, it provides no assessment on the quality of the report or the project activities themselves (ex, dissemination activities, social/environmental assessment, etc.)	**MU**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	TE has the benefit of being clear, and covering each of the project activities. However, no ratings are provided, and little to no evidence is not presented to back up claims of project success. Many aspects of project implementation are not discussed at all, including project M&E, and implementation and execution quality.	**U**
To what extent does the report properly assess project sustainability and/or project exit strategy?	TE does not sufficiently assess project sustainability. TE does report on some interest by Eskom in building off the findings. However, no assessment is offered on the strength of that commitment, or whether Eskom has the resources to invest in CSP on its own. Project findings also targeted (are intended to be relevant to) other Southern African countries – none of which are discussed in the TE.	**U**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	TE provides no lessons of value. Problems in funds flow and coordination are mentioned, and yet no lessons or recommendations are provided as a result – a missed opportunity.	**HU**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	TE does include actual costs and co-financing, but does not breakdown costs by project activity, nor provide any explanation for why realized co-financing was different from expected co-financing	**MU**
Assess the quality of the report's evaluation of project M&E systems:	TE provides no assessment of project M&E.	**HU**
Overall TE Rating		**U**

Overall TE rating: (0.3 * (3+2)) + (0.1 * (2+1+3+1)) = 1.5 + 0.7 = 2.2 = U

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