



## CDM: Recommendation form for Small Scale Methodologies (Version 01.1)

*(To be used for presenting questions/proposals/amendments to the simplified methodologies for small-scale CDM project activity categories)*

<b>Date of SSC WG meeting:</b>	16–19 April 2013, SSC WG 40
<b>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</b>	Revision of AMS-III.AR to simplify monitoring requirements for project lamps
<b>Indicative methodology to which your submission relates</b> <i>(refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable:</i>	AMS-III.AR "Substituting fossil fuel based lighting with LED/CFL lighting systems"
<b>Name of the authors of the query:</b>	Alexandre Vial Institution: ENERCAP <a href="mailto:alexandre.vial@enercap.fr">alexandre.vial@enercap.fr</a>

### **Summary of the query:**

Please use the space below to summarize the query related to SSC methodologies/categories SSC Modalities and Procedures provide recommendation/analysis of the SSC WG.

Original text from PP:

In reference to methodology AMS-III.AR *Substituting fossil fuel based lighting with LED/CFL based lighting systems*, we have submitted a PoA titled "SunLighting Africa" which is already listed in the PoA Pipeline and is in the process of validation. ENERCAP is a project Development Company with representations in Africa dealing with Renewable Energy. We have launched a massive Solar Lantern distribution Program across Africa to replace 300 million kerosene lamps in the Sub-Saharan African region, mainly in remote rural areas of Least Developed Countries. At this stage, we have initiated some pilot phases in about 5 countries and we plan to start the massive distribution plan in the next few months. The SunLighting Africa PoA, which supports our distribution Program, currently includes 19 different Sub-Saharan African countries. The aim of these projects is to help introduce efficient and renewable energy and to encourage the use of efficient energies in the future. We are considering ways to improve our project as well as the implementation of the CPAs in terms of the crediting period and the technical specifications of the project lamps used.

#### 1. Crediting Period

Under the current methodology, in order to claim emission reductions for more than 2 years, monitoring must be done. In this monitoring it is necessary to explicitly identify the end user of the lamp; something that is nearly impossible to do in remote, rural Sub-Saharan Africa where the types of projects under this methodology are located. The difficulties in identifying the end beneficiaries stem from the facts that most people in remote rural areas of Africa have no address, no form of identification, possibly no phone and there is the strong likelihood that they will no longer be living at the same location after 3 years time. Because of the difficulties that will arise in tracking end users in the third year, monitoring would be inefficient and could become quite expensive. On top of that, there is the distinct possibility that, in the non-electrified rural areas of the projects, the end users are spread over a large area, which increases the money and time investment needed to carry out the monitoring under the methodology. We estimate monitoring for the minimum of 100 units to cost conservatively between \$40,000 and \$60,000 over a six month period. The table below presents our estimated costs of monitoring. Implementing a programme for 2 years, however, has a financially insufficient impact. With the methodology as is, it would not be possible to successfully complete year three monitoring required for the seven year crediting period in a cost effective manner. We therefore request that the monitoring required for the crediting period of 7 years be reasonably simplified in order to allow cost effective monitoring where it is not possible to reliably track the

end user.

To overcome the difficulty of tracking the end user, we propose the possibility:

- Of using a group, such as a village or a zone, for monitoring purposes in lieu of an unambiguous individual. Under this system lamps would be distributed and a signatory who is a person in charge of the area, perhaps a chief or mayor, would indicate the receipt of the lamps and distribute them. The lamps will each be uniquely identified with a permanent marking in order to connect them with their individual project. For monitoring, the area would be checked for lamps to find a proportion that are working. It could be assumed that if the lamp is working it is being used because of the benefits that come from using the lamps. With this monitoring scheme, a minimum of 100 entities would still be met.
- Lamp technical specifications for option 2 in the methodology shows an average rated lifetime of 10,000 hours, which with the considered usage from the methodology of 3.5 hours a day gives the lamps a lifetime of over 7 years. With this average rated lifetime it should be possible to claim reductions for a period of time longer than 2 years with minimal monitoring. With adequate information on the rated lifetime of the lamps, it is reasonable to conservatively estimate the failure rate of the lamps during the crediting period with broad monitoring.
- With the use of a battery that has an average lifetime above 2 years and is changeable, it is clear that the solar lamp has the potential to last longer than the 2 year crediting period. With a system put in place for the replacement of used batteries it would be possible to record the lamps that are still in use and prolong the life of the lamps.

#### Lamp Technology

The current methodology also does not put value on more powerful lamps. Under the methodology there is no difference given between a lamp that just conforms to the minimal requirements outlined in the methodology and one that exceeds it. As the output of the lamp increases, so does its utility. With a more powerful lamp, a greater impact can be made, providing more emissions reductions and therefore there should be an increase in the credits received. Two kerosene lamps could be replaced by one lamp with a higher output. With the possibility of replacing more than one kerosene lamp with a solar lamp the reduction in emissions per lamp distributed is greater. For this we propose that the increase in credits received be proportional to the increase in lamp output. That is to say that with a lamp twice as powerful, twice the credits could be given; 1.5 times as powerful, 1.5 times the credits given.

Thus, in order to give full benefits of both the PPs and the beneficiaries of projects under methodology AMS-III.AR, *Substituting fossil fuel based lighting with LED/CFL based lighting systems*, we offer for consideration the addition of following:

- A system to reward CERs proportional to greater output of rechargeable lamps powered by a renewable energy system;
- A realistic monitoring requirement that does not depend on the unambiguous identification of the end user for a crediting period of 7 years.

Item	Unit cost (€)	Number	Total (€)
<b>International travel and accommodations</b>	5000	2	10000
<b>Local travel</b>	100	150	15000
<b>Local staff</b>	300	5	1500
<b>International staff</b>	3000	1	3000
<b>Materials</b>	3000	1	3000
<b>Telephone</b>	1000	1	1000
<b>Other expenses</b>	1000	1	1000

Computer/tablet, printer, paper...

Local, International, internet

Any emergency or unforeseen expenses

**Total: 34500**

Estimated expenses table

**Recommendation by the SSC WG:**

Please use the space below to provide amendments / change (in your expert view, if necessary).

Please refer to paragraph 23(b) of the meeting report of the SSC WG 40  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](http://cdm.unfccc.int/Panels/ssc_wg)>.

**Answer to authors of query by the SSC WG:**

Please use the space below to provide answer to the authors of the above query.

The small-scale working group (SSC WG) of the CDM Executive Board would like to thank the author for the submission.

Regarding the first suggestion on simplification of monitoring requirements for the seven years' option, the SSC WG appreciates the inputs from the author of the submission with respect to suggested modifications to AMS-III.AR. However, the SSC WG is of the opinion that further justifications and more concrete proposals are required to ensure that changes to the methodology's monitoring requirements will improve the efficacy of project implementation as well as conservatively and reliably determine emission reductions.

With regard to the second proposal on a system to reward CERs proportional to greater output of rechargeable lamps, the SSC WG also agreed that more input and study should be provided in order to allow us to review and potentially modify the stipulated saving value in the current version of the methodology.

The SSC WG agreed to continue to consider the case based on any further input by the project proponents and other stakeholders that may be solicited so that if any changes are made to the methodology they are applicable to a wide range of implementation/distribution strategies.

Signature of SSC WG Chair: Mr. Martin Cames

Date: 19/04/2013

Signature of SSC WG Vice-Chair: Mr. Washington Zhakata

Date: 19/04/2013

**SECTION TO BE FILLED IN BY THE UNFCCC SECRETARIAT**

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**History of the document**

Version	Date	Nature of revision(s)
01.1	12 April 2012	Editorial changes to include new logo and other improvements.
01.0	2005	Initial publication.
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Form <b>Business Function:</b> Methodology		