



CDM: Recommendation Form for Small Scale Methodologies (version 01)

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

Date of SSC WG meeting:	24–27 February 2009, SSC WG 19
Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):	Requirement of linear ex ante lamp failure rate of CFLs in AMS-II.J
Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.	AMS-II.J
Name of the authors of the query:	Kaspar Schatzmann Institution: Stauber & Schatzmann GmbH schatzmann@projektagentur.ch

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:

According to the methodology AMS.II.J the ex ante Lamp Failure Rate (LFR_y) must be calculated straight proportional (linear) according to the formula below:

The Lamp Failure Rate (LFR_y) is the % of lamps that have failed during a year. The rated lifetime is used to calculate the *ex ante* Lamp Failure Rate as follows:

$$\text{If } y * X_i < L_i, LFR_{i,y} = y * X_i * (100 - R_i) / (100 \times L_i)$$

$$\text{If } y * X_i \geq L_i, LFR_{i,y} = 1$$

Where:

$LFR_{i,y}$ Lamp Failure Rate for equipment type i in year y (fraction)

L_i Rated average life for equipment type i (hours)

R_i % of lamps of type i operating at the rated lifetime (use a value of 50)

X_i Number of operating hours per year for equipment type i (hours)

y Counter for year

(iv) Emissions reduction is net electricity savings (NES) times an emission factor (EF) calculated in accordance with provisions under AMS I.D.

Now the actual Lamp Failure Rate (LFR_y) of specific CFLs in the market is not linear, but exponential

with very low Lamp Failure Rate over the years and an intense increase in the last years of operating time.

The linear ex ante calculation model for the Lamp Failure Rate – as given in AMS.II.J – is not reflecting the actual conditions properly.

Therefore the following request for clarification arises:

1. Can the ex ante Lamp Failure Rate (LFR_y) be calculated with the specific scientifically documented LFR-curve of the CFL-producer (instead of using the linear calculation model).
2. On the basis of ex post monitoring surveys, the net electricity savings are adjusted considering the actual lamp failure data. If the failure rates are lower than the ex ante estimate, can the emission reduction claims be compensated for the underestimations?

Recommendation by the SSC WG:

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

Please refer to paragraph 11 of the meeting report of the SSC WG 19
<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 of the CDM Executive Board would like to thank the author for the submission.

With respect to your inquiry about using the specific scientifically documented LFR-curve of the CFL-producer (instead of using the linear calculation model), the SSC WG is concerned about the complexity of integrating different approaches into this simplified SSC methodology and potentially affecting implied conservativeness of the methodology. However, the SSC WG is evaluating the issue further for consideration at the twentieth meeting.

Ex post monitoring failure rates lower than the *ex ante* estimate may be a result of, for example, one or more of the following factors:

- The average utilisation hours for the lamps are under 3.5 hours per day;
- Sampling and survey methods employed did not capture all associated uncertainties and compensate for it;
- Lamps distributed by the project were of better quality than those used for establishing the failure rate;
- The grid supply characteristics (voltage fluctuations, grid harmonics etc.) in the project households are better than the test conditions specified by the standard with which mortality curve was established;
- Non linear failure rate of lamps in the field as opposed to *ex ante* linear failure rate assumed.

The SSC WG is further analysing the issue with a view to recommend revisions in the methodology at the twentieth meeting to clarify the issue.



Signature of SSC WG Chair

(Hugh Sealy)

Date: 27/02/2009



Signature of SSC WG Vice-Chair

(Peer Stiansen)

Date: 27/02/2009

Information to be completed by the secretariat

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