



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)*

<i>Date of SSC WG meeting:</i>	24–27 February 2009, SSC WG 19
<i>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</i>	Revision of AMS-II.J for LFR adjustment procedures and PoA-specific provisions
<i>Indicative methodology to which your submission relates (refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable.</i>	AMS-II.J version 02
<i>Name of the authors of the query:</i>	Anne Arquit Niederberger Institution: Policy Solutions policy.solutions@comcast.net

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:

We would like to request a number of changes to AMS II.J:

- **Issues related to LFR adjustment procedures**

Lamp failure rate: Paragraph 14 states that the ex post surveys are used to correct the parameter QPJ,i based on the actual number of CFLs still in service. However, this procedure represents a double discount on top of the extremely conservative LFR parameter, which already discounts QPJ,i by drawing a straight line between 100% lamps in service at the time of installation and 50% of lamps in service at the rated lifetime (actual mortality curves are not linear, but have lower failure rates prior to the rated lifetime, and the methodology assumes that no bulbs are in service at all after the expected lamp lifetime is reached (rated lifetime / annual hours of operation), whereas we would expect that 50% would still be in operation, based on widely used testing standards). What Paragraph 14 should do is correct the LFR (not QPJ,i, as currently stated in the methodology), based on results of the ex post survey. It should be allowed to decrease or increase LFR, based on the ex post survey results. An alternative would be to drop the ex post survey requirement and require use of the conservative LFR parameter – or, a third alternative would be to allow project proponents to select from these two options. We have proposed to modify the methodology according to this flexible third alternative.

Number / timing of ex post surveys: The current version penalizes project participants for using high-quality, long-life CFLs, which hurts the environmental integrity of the methodology (the shorter the lifetime, the more mercury is used). If we assume 3.5 hours per day of use, then a 6000-hour lamp would only need the first commissioning survey and one ex post survey at 3 years; whereas a 15000-hour lamp would require at least 4 surveys (commissioning survey plus surveys at 30%, 60% and 90% of elapsed rated lifetime). There is no rational basis for this unequal treatment, which creates a perverse incentive to use lower-quality bulbs. The best solution would be to require the commissioning survey and only one other survey that must be conducted within 20% of the end of the expected lamp lifetime (of course, project developers would be free to survey more often, if they wish), for example:

- 6000-hour lamp: Initial commissioning survey plus second ex post survey between 3.8 and 4.7 years (6000 hours / 1278 hours/year) X 0.8 = 3.8 years (the 4.7 years comes from rated lifetime / annual hours of operation)
- 10000-hour lamp: Initial commissioning survey plus second ex post survey between 6.3 and 7.8 years (10000 hours / 1278 hours/year) X 0.8 = 6.3 years

Based on the shape of lamp mortality curves, it is really the final period in expected lamp lifetime, where there is a sharp change in survival rates, so it makes sense to survey in this period for bulbs regardless of their rated lifetime. However, even this approach does not solve the challenge for programs using long-lived lamps of needing to track bulbs many years into the future; but at least long-lived bulb programs are not required to do relatively more surveys.

We therefore request the SSC WG to modify the LFR adjustment procedures as indicated in the attached draft (particularly Paragraphs 12, 14 and 15, as well as related provisions required in other paragraphs for consistency).

- **PoA-specific provisions**

BP under PoA: Requiring a deduction of CERs equal to current market penetration in a program that involves exchanging the baseline technology (incandescent lamps) to receive CFLs makes this methodology economically unfeasible for application under a PoA in many settings. This is because credit is only given up to the current market share of the baseline technology – despite the fact that only incandescent lamps can be replaced and must be taken back and destroyed under the methodology. This provision is unduly conservative and will therefore block its large-scale application. The methodology already accounts for free-ridership in the NTG factor and only allows for one, non-renewable crediting period.

We would also like to point out that the large-scale methodology AM0070 credits energy savings relative to a market benchmark, not even requiring the baseline technology to be exchanged under the program, so we believe there is ample justification to delete BP for PoA in a simplified small-scale methodology that requires exchanging baseline for project technology, includes a net-to-gross of free-ridership factor and only allows for one non-renewable crediting period limited to the expected CFL lifetime. If the SSC WG does not agree to delete BP, then we request a clear justification for requiring it to be applied to SSC PoA only, as well as an explanation of why BP is required in addition to the NTG, which already accounts for free ridership (i.e., program participants that would have installed CFLs anyway).

As a matter of principle, there is no guidance that would justify application of a BP factor only when CDM is implemented under SSC-PoA mode, but not in single-project mode. CMP1 paved the way for PoA implementation in 2005, with its decision that project activities under a program of activities can be registered as a single clean development mechanism project activity. The only caveat was that approved baseline and monitoring methodologies be used that, inter alia:

“...define the appropriate boundary, avoid double counting and account for leakage, ensuring that the emission reductions are real, measurable and verifiable, and additional to any that would occur in the absence of the project activity.”

The methodology already satisfies these requirements; placing additional methodological requirements on implementing activities in PoA mode (such as introducing a redundant BP factor) is not justified on the above grounds and therefore represents an unnecessary barrier for PoA implementation with respect to single SSC project activities.

The BP and heating cross-effects provisions of the methodology (see next bullet) are forcing project proponents to pursue individual SSC CDM project activities using AMS II.J., rather than PoA, which is a waste of scarce financial and DOE resources. The recent CMP4 decisions on the CDM highlight the desire of Parties to encourage the CDM EB to broaden the applicability of methodologies, as well as to consider reasons why approved methodologies have never been utilized, and encourage project participants to develop programs of activities. These PoA-specific provisions hinder PoA (particularly the

BP requirement) and limit the applicability of the methodology to projects in certain climate zones or with very specific program designs (in the case of cross-effects).

We therefore request that BP be deleted from the methodology (Equation 1; Paragraph 18), which unnecessarily puts programmatic efforts at a disadvantage, preventing exactly the types of programs that can be readily implemented in under-represented developing countries.

Cross effects under PoA: We would argue that treatment of cross-effects should not be required under any SSC methodology, as these are supposed to be simplified methodologies that can facilitate small-scale projects. Scaling up efficient lighting under PoA using AMS II.J. has huge potential in under-represented Host countries. In fact, the Parties commended the EB for its approval of this methodology, which can decrease *“the monitoring cost significantly by allowing default factors.”* Yet the PoA-specific provisions, including application of BP (refer to previous bullet) and accounting for heating cross-effects render the methodology non-viable for application under PoA, which is needed to effectively scale up investment. This is particularly germane, given the request from the Parties at CMP4 for the EB to *“facilitate the development and approval of new and revised existing methodologies, based on the specific needs of, and potential for, application in countries underrepresented in the clean development mechanism...”*

Accounting for cross-effects is NOT a simple matter (and it has not been required even of similar large-scale methodologies); it typically involves sophisticated simulation modeling, which requires extensive and detailed building stock and weather databases, making such analysis impossible for most project participants to conduct and DOEs to validate. In terms of financial viability, the cost of such modeling dramatically increases transaction costs. From a methodological perspective, no guidance is provided on HOW to account for cross-effects, rendering it impossible for DOEs to validate any approach selected by a project participant. Requiring accounting for cross-effects without specifying a robust methodology to do so contradicts the wishes of the Parties as expressed by the CMP4 decision requesting the Executive Board to *“further enhance the objectivity in the determination of emission baselines”*. Last, but not least, we certainly don't want to encourage people to heat their homes with wasteful electrical light bulb "heaters" in lieu of more efficient space heating systems!

A second consideration is materiality. These cross-effects are highly variable based on the specific local weather and individual building and behavior characteristics, yet typically not large for buildings of the quality common in Host countries. We did simulation runs for one apartment building design each in Shanghai and Beijing (comparing impacts of both replacement of 6 incandescent lamps with CFLs and use of a more efficient refrigerator). Based on local heating degree data, the current methodology would require project activities in both of these cities to account for heating cross effects. For Beijing, the heating penalty is 15%, and the cooling benefits, 2% of the electricity savings, regardless of whether it's from lighting (replacing four 60W incandescent lamps by 12W CFL and two 100W incandescents by 23W CFLs, with 3.5 hours per day of operation) or the refrigerator. For Shanghai, the heating penalties are from 6-9%, and the cooling benefits from 5-8%, respectively. Note, however, that the lighting and refrigerator savings are in electricity, whereas the heating penalties are typically in coal or natural gas. If a fuel multiplier of 3 is used to account for the generation and transmission losses in electricity, then the heating penalties are further reduced to 5% in Beijing and 2-3% in Shanghai. In other words, the cooling benefits outweigh the heating penalties. We consider these results to be reasonably typical, so that the effect can be ignored on materiality grounds.

Furthermore, the current version of the methodology is methodologically unsound in its treatment of cross-effects, because it ignores cooling cross-effects, which can be significant in many developing countries, in considering when cross-effects must be accounted for (in general, the criteria provided in the methodology are arbitrary).

Finally, as elaborated in the previous bullet, there is no guidance that would justify requiring treatment of cross-effects only when CDM is implemented under SSC-PoA mode, but not in single-project mode.

We therefore request the SSC WG to remove the heating cross-effects provisions from Paragraph 18 of the methodology.

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

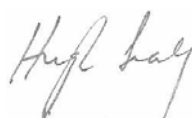
The small-scale working group of the CDM Executive Board would like to thank the author for the submission.

With respect to LFR, the SSC WG may evaluate this for further consideration at the next meeting in the context of considering a number of suggested changes to the methodology. We also note your suggested change to the methodology that “If a program CFL failed and was replaced by another CFL of the same or lower wattage by the time of the survey, the CFL is considered to still be in operation”. The SSC WG may also evaluate this for further consideration at the next meeting.

In terms of requirements for timing of *ex post* surveys, the Board considered this issue at its forty-fourth meeting (with consideration of your previous inquiry SSC_240) and made changes to the methodology it felt appropriate. Please note that while longer life lamps may require more surveying, they also receive more CERs than shorter life lamps.

With respect to Baseline Penetration, as indicated before in response to your prior inquiries, the SSC WG believes that Baseline Penetration is an appropriate consideration for purposes of not crediting lamps that would have been used in place of incandescent lamps without the CDM program. However, the SSC WG may recommend modifications to the methodology, at the next meeting to clarify and/or eliminate the overlap of NTG and BP in PoAs.


With respect to cross effects, the Board considered this issue at its forty-fourth meeting (also with consideration of your previous inquiries) and made changes to the methodology it felt appropriate to limit the situations in which cross effects analysis is required.



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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