Responses to public comments on the proposed new small scale methodology AMS-II.Q "Energy efficiency and/or energy supply projects in commercial buildings"

I. Background

1. The Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM), at its sixty-sixth meeting agreed to launch a call for public input on the draft new methodology SSC-III.AZ "Energy efficiency and/or energy supply projects in commercial buildings", as contained in annex 6 of the report of the thirty-fifth meeting of the small-scale working group (SSC WG).The call was open from 05 March 2012 to 5 April 2012 (24:00 GMT).

2. In total, the following three public submissions were received from stakeholders.[1]

(a) Saravanan;

(b) The World Bank;

(c) Management System Certification Institute (Thailand).

3. The SSC WG at its thirty-seventh meeting thanked the authors of the submission. In addition the following responses were prepared by the SSC WG with respect the specific questions/issues raised in the submission from the stakeholders.

II. Summary of the public comments and responses by the SSC WG

Commenter from D Saravanan

Question/comment 1: *The methodology does not give incentive to building orientation and related external features because project scenario building and baseline have the same basic configurations.*

Response: The comment seems to be a misunderstanding of the intent and the detail of the methodology – see especially paragraph18(a), which clearly indicates that the impacts of innovative base building (B) features, including orientation, shape and façade, in the project scenario should be reflected in accounting for emission reductions.

Question/comment 2: *While estimating the Baseline emissions for the new construction projects, according to Paragraph 17(c) when there is a legally mandated code on energy performance of buildings, if the Baseline Emissions calculated using computerized simulation tool is higher than mandated code on energy performance, then the baseline emissions should be based on the mandated code not based on the simulation tool results as proposed in the methodology.*

Response: The SSC WG acknowledged this issue and revised the draft methodology accordingly (please see paragraph 18(c) in the version recommended for approval).

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[1] <http://cdm.unfccc.int/public_inputs/2012/eb66_04/index.html>and <http://cdm.unfccc.int/public_inputs/2012/eb67_01/index.html>

Commenter 2: The World Bank

Question/comment 1: *Expansion of the Applicability beyond commercial buildings*

Response: The SSC WG had taken note of the commenter's proposal. Nevertheless, the SSC WG agreed to recommend a methodology for commercial buildings to begin with, however will continue to work to expand it to cover other building types in the next phase. In the meantime, the SSC WG solicits more public comments/inputs with respect to the applicability of computer simulation models for determination of energy consumption by residential buildings, in particular residential buildings located in rural area and where there may be several types of energy sources that are being used(e.g., electricity, non-renewable biomass, coal/kerosene). Please also refer to the questions on the draft methodology AMS-II.E "Energy efficiency and fuel switching measures for buildings"(SSC WG 37, annex 10)

Question/comment 2a: *BESTEST protocol is not suited to evaluate the modelling inputs; NM0053 calibration is suggested*

Response: BESTEST was mentioned only in reference to the class of building simulation tools that are acceptable for this methodology (par. 15) and not for evaluating modelling inputs. In other words, this is a general validation and verification requirement for tool selection. The validation and calibration requirement for the specific building being modelled with the specific tool selected does not require BESTEST and is addressed in the paragraphs 20-21 and Figure. 2.

The NM0053 calibration is based on a slightly different concept of using the computer model and comparing model results directly with actual measured data, but as shown in Figure. 2 and the methodological requirements, the current draft methodology is based on a different concept.

Question/comment 2b: *Requirement to annually recalibrate the model for each individual building*

Response: We will continue to consider the issue based on the experience gained.

Question/comment 2c: *Calibration requirement for the baseline setting for existing buildings*

Response: It is correct that calibration is only undertaken for the ex post project model and consistent with the concept behind the methodology of comparing project model results with baseline model results in determining emission reductions (para. 18(a) and (b), Figure 2). The retrofit case is covered in the same way (para. 17, Figure 2). For this reason, the intent or meaning of the comment about the baseline setting for retrofit is not very clear to the SSC WG.

Question/comment 3: *Reconsider the principle of baseline determination for new buildings based on minimum energy requirements in the building code*

Response: Paragraph 18(c) covers the case where there is a "legally mandated code on energy performance". In practice, this becomes the minimum target for design and project delivery; if not met, the proposed building design cannot be approved, and thus cannot be built. While it is true that actual energy performance may/will vary from "energy budgets" (term usually used where is no minimum code requirement), the concept of having a legal minimum requirement is different and carries with it industry/market and public expectation of minimum performance (based on standardized conditions). Thus, it is appropriate to use the minimum energy requirements in the

building code, where it has a legal status (as opposed to a model building code that does not have jurisdictional legal status).

Commenter 3: K Seidel, Management System Certification Institute (Thailand)

Question/comment 1: *Why require ASHRAE Guideline 14 for model calibration instead of prEN 16247-2 or internationally recognized and publicly available IPMVP?*

Response: The original draft proposal indeed cited the IPMVP standards for reasons cited. However, ASHRAE Guideline 14 was suggested and selected because of its more rigorous requirement to consider data uncertainties and variability. prEN and other regional standards may also be subject to the same issues that are raised against the ASHRAE (American *vs* European in representation, etc.). ISO standards would be an exception, but there is no relevant standard for modelling calibration is known to the SSC WG. IPMVP does not include specific calibration requirements.

Question/comment 2: The methodology should be open and extended besides ASHRAE Guideline 14-2002 (already addressed above), eQuest, EnergyPlus …

Response: Regarding the whole building simulation tools, paragraph 14 is very clear that the choice of tool is open as long as it has passed the general BESTEST verification and validation protocols. The tools noted above were mentioned only in the footnote as examples of such tools.