Responses to public comments on the revised draft methodology AMS-II.C "Demand-side energy efficiency activities for specific technologies"

I. Background

1. The Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM), at its sixty-sixth meeting launched a call for public input on the draft revised methodology AMS-II.C, as recommended by SSC WG 35, and that was open from 5 March 2012 to 5 April 2012.

2. Only one public submission was received. The submission was made by the World Bank.[1]

3. The SSC WG at its thirty-seventh meeting thanked the authors of the submission for the useful suggestions made. In addition the following responses were prepared by the secretariat and the SSC WG, with respect the specific questions/issues raised in the submission from the stakeholder.

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

	Comments	**Responses to the public comments**
(i)	Clarify that name plate data can be used for constant load devices under Option 1; ***Additional clarification received through further communication:*** The clarification need be made for non-motor constant load (dimming should not be treated as constant load)	Clarified and addressed in the revised methodology
(ii)	Provide optional default load factors for specific technologies and applications under Option 1 (case of motors) and Option 2(a); ***Additional clarification received through further communication:*** Using default load factors is rather about having a value that can be a trade-off between data acquisition costs and ER to be claimed. While the maximum efficiency of motors is usually near 75% of rated load, actual motor load factors can vary from 30% (or even less) to 60% on annual basis. Please, refer to "Handbook of Energy Efficiency And Renewable Energy" available online at www.books.google.com). The default value will facilitate the development of projects using AMS-II.C (with less ER), but it should be conservative enough to create an incentive for those project proponents who want to	The default load factors could be developed for different end-use applications. However, due to their variably loaded nature, loading will vary widely and non-linearly over time, and therefore any prescribed value would be imprecise for individual applications. Prescribing load factors therefore may introduce significant uncertainty into calculated baseline energy use. Hence any prescribed load factors may work only for a limited number of very simple and well defined applications. The SSC WG is of the opinion that further research effort is required to explore providing application- and region-specific default load factors. Regarding comment on EFLH approach, the SSC WG agreed to remove the approach. See the revised draft methodology

[1] <http://cdm.unfccc.int/public_inputs/2012/eb66_05/index.html>

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	claim more ER to apply the spot measurement. Once the principle of using default load factors is accepted, it may be advisable to conduct some reviews of the literature and concrete experiences of different types of applications that are most likely to be implemented in developing countries. As a result of this review, very conservative values could be recommended for ER calculation. Project developers would be given the choice to use those default values or conduct short term monitoring or spot measurements as currently in the draft methodology. We will be pleased to provide our view on the findings of the review. It should be noted that in a different type of projects, the suggested approach can be compared to other methodologies such as AMS-I.L for PV systems where a default of 12% availability is suggested using manufacturer nameplate data while solar resources are greatly variable from different locations around the world. In Option 2(a), EFLH is defined as the sum of the annual kWh consumption of the group i baseline devices divided by the sum of the group i baseline devices full load kW. In other words, the value of EFHL will depend upon load value in kW, i.e. for the same annual energy consumption in kWh the highest kW value is the lowest EFHL will be and vice-versa. EFHL is supposed to capture the variability of the load. Consequently, we are questioning the need to introduce full load measurement (or even default load factor) in Option 2(a) and if using nameplate data could not be a good proxy if combined with EFHL approach	
(iii)	To allow the use of benchmark energy functions (based on manufacturers' data or standard test data) for Greenfield projects targeting variable load devices. ***Additional clarification received through further communication:*** For equipment such as HVAC systems or pumping system, manufacturers usually provide performance data (power input in relation to main independent variables, demand or output). The performance of the baseline equipment could be modeled using coefficients generated (regression coefficients) by curve-fitting the manufacturer's data or test data under	Taking into account the challenges involved in determining baseline emission for Greenfield projects particularly under the simplified small scale methodological framework, the SSC WG is of the opinion that further research effort is required to explore various options including the one that is suggested here. Please note that the SSC WG clarified, in the revised methodology, which option is applicable for Greenfield projects to determine baseline emissions

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	variable operation conditions. This approach is similar to the one included in Option 2(b), regression approach for retrofits. The idea is to explore how manufacturer data or test data can be used to predict the energy consumption of the baseline equipment in the case Greenfield projects. The project proponent must be required to demonstrate how the baseline equipment is selected (based on the market/application, current national/regional/international practices, etc.) and document the sources of data use to build the energy function. Moreover, it should be required to validate the output based on literature review or real cases and to calibrate the model according to the relevant standards. The independent variables should be monitored to determine the baseline energy for each year of the crediting period and cross-effects must be accounted for, when applicable. We recommend SSC WG to further investigate this option by seeking experts' inputs on which measures/technologies and conditions this approach is applicable to	
(iv)	Provide further guidance for the determination of project energy consumption for all three options. ***Additional clarification received through further communication:*** The current draft includes in paragraph 8 the following statement: "Project energy consumption in case of project activities that displace grid electricity is determined as follows using the data of the project equipment or system with a formula" This formula is similar to Equation (2) used under Option 1. It could useful to add some guidance in this section for the establishment of project consumption for Option 2 and Option 3 in accordance with the current requirements for monitoring	Clarified in the revised methodology
(iv)	Remove the requirements for scrapping of the baseline equipment for PoA as recommended by SSC WG for Type-I and AMS-II.F. ***Additional clarification received through further communication:*** We encourage the SSC WG to conduct the analysis and provide the requirements by differentiating measures where scrapping is relevant or not	The application of AMS-II.C is quite broad covering from small distributed installation (e.g. CFLs, household refrigerators, etc.) to large installations such as Chillers. The SSC WG will carry out further analysis in future on options and implications to remove the requirement providing more detailed requirements that describe where scrapping are required, or where re-use is permitted