Approved baseline and monitoring methodology/ methodological tool revision recommendation form (Version 02.0)

INFORMATION TO BE COMPLETED BY PANEL/WG	
Date and number of Panel/WG meeting:	26−29 August 2013, SSC WG 41
Title/Subject of the request for revision:	Revision of AMS-III.BC to include engine efficiency improvement that also improve combustion efficiency of the vehicle
Reference number of the request for revision:	SSC_687
Exact reference (number, title and version) of the methodology or methodological tool to which the request for revision applies:	AMS-III.BC – version 01.0 "Energy efficiency measures in thermal applications of non-renewable biomass"

Summary of the request for revision:

Original text from PP/CME:

The approved methodology III.BC does not cover efficiency improvements that improve combustion efficiency of the vehicles in the fleet. This revision is being requested so that the methodology can also be used to cover retrofits to vehicle engines that improve engine efficiency and combustion efficiency. In the project being proposed, these engine efficiency retrofits will be combined with other measures covered under this methodology such as Eco-drive technology, and use of low viscosity oils, and therefore it was decided that the existing methodology III.BC is most appropriate for the underlying project activity.

Requested revisions include the following:

1. Including technologies that improve engine efficiency in the applicability conditions (para 2.) and that may affect combustion efficiency. (para 6.b).

2. The use of an Oxidation Factor in the calculations of baseline and project emissions in order to adjust CO2 emission factor[1] for any increase in combustion efficiency and any subsequent fuel consumption reduction except for a slight adjustment due to improved combustion efficiency (and better oxidation of the fuel) due to the retrofit technology. The use of the Oxidation Factor is necessary in order to satisfy the EB 32 para. 28 ruling regarding improvements to combustion efficiency. This approach has been used in AM0054 ¨***Energy efficiency improvement of a boiler by introducing oil/water emulsion technology***¨ which also involves a technology that improves combustion efficiency. The same general approach has been applied here. Note that for project activities that do not introduce any devices that affect combustion efficiency, the same oxidation factor can be used for the project and baseline calculations, and therefore this revision will not affect those other projects. Changes include the addition of an oxidation factor ($OXID_{BLx,}$ and $OXID_{PJ,x}$) in equations 2 and 4 and 6 and 8, as well as to the monitoring parameter table (para. 23). Default oxidation factors may be used, or otherwise a procedure similar to that in AM0054 that determines oxidation factor based on the the quantity of PM in the flue gas, the ash content, quantity of fuel burnt for test purposes, and the carbon content and density of the fuel. AM0054 allows the use of a default value of 1 for the project scenario, which is also suggested as a default here, if no measured value is available.

3. Inclusion of CH4 and N2O emissions in the project boundary (and equations) since some retrofit technologies may lead to reductions in these GHG´s as well, though they may be quite minor. IPCC default emission factors may be used or measured technology-specific values, if available. These emission factors could be either per km (as provided in IPCC table 3.2.5 for example) or per MJ. (Note that these emission factors would have to be added to the formulae for calculating, i.e. equations 2,4,6 and 8)

4. Inclusion of another vehicle category for light-duty trucks, i.e. less than 3.5 tonnes. (para. 10)

[1] Note that CO2 emission factors (eg. IPCC defaults) generally assume complete combustion, i.e. an oxidation factor of 1, even though this is never actually achieved. The IPCC guidelines recommend a default value of 0.99 for the oxidation factor for oil products, even though it would likely be less for diesel vehicles in developing country conditions.

5. Include monitoring operation of installed project devices, such as eco-drive, or retrofit devices to ensure that credits are only earned when these devices are operating. This is in-line with III.AT (for Tacograph devices), but was not included in version 1 of III.BC even though Eco-drive systems are covered under this methodology. Text copied (and slightly modified) from III.AT.

6. Change the PoA clause (para 24) that limits reductions to 20% so that it is not so restrictive and is in line with III.AT, i.e. if emissions reductions are greater than 20% then it must be appropriately justified that this is feasible with relevant studies. The text from III.AT (para. 25) has been adapted and included here.

7. Some minor editing revisions to improve clarity.

Recommended decision to the Board on the request for revision

☒ Approve the proposed revised methodology or methodological tool ("A case")
☐ Reject the proposed revised methodology or methodological tool ("C case")

Type of the revision if the recommendation is A case

☒ The revision is a major revision
☐ The revision is a minor revision

Reasons for rejection if the recommendation is C case

N/A

Any other issues arising from the request for revision

All the issues were responded by PP.

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Document information

Version	*Date*	*Description*
02.0	18 July 2013	Revised to remove the row "Date and signature of the chair and vice chair of Panel/WG"
01.0	4 July 2013	Initial publication. This document supersedes and replaces the following documents: • Recommendation form for Small Scale Methodologies (F-CDM-SSCwg) (Version 01.1); • Recommendation Form for Small Scale A/R Methodologies and Procedures (F-CDM-SSC-AR) (Version 01.1).

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