



## CDM: Recommendation form for Small Scale Methodologies (Version 01.1)

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

<b>Date of SSC WG meeting:</b>	16–19 April 2013, SSC WG 40
<b>Title/Subject (give a small title or specify the subject of your submission, maximum 200 characters):</b>	Revision to expand AMS-III.AN to a project facility with less than three years operational data
<b>Indicative methodology to which your submission relates</b> <i>(refer the items of Appendix B of the Simplified Modalities and Procedures), if applicable:</i>	AMS-III.AN “Fossil fuel switch in existing manufacturing industries”
<b>Name of the authors of the query:</b>	V. Raghunathan Institution: Hi-Tech Carbon (A Unit of Aditya Birla Nuvo Limited) <a href="mailto:raghunathan.v@adityabirla.com">raghunathan.v@adityabirla.com</a>

### **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:

### **Revision 1:**

#### ***Methodology Reference:***

As per AMS IIIA.N, version 2.0, paragraph 2 (C), “The baseline is the continued use of existing system and where the system must have been in operation for **at least the immediately prior three years** to the start date of the project activity. This requirement is in order to ensure that adequate baseline performance data are available”

Further, in the subsequent paragraph 10, “The baseline fuel consumption ( $FC_{FF,BL,i}$ ), product output ( $P_{BL,i}$ ) and/or input material ( $I_{BL,i}$ ) as relevant shall be available for the immediately prior three years to the start date of the project activity (or the start date of validation with due justification) for the purpose of baseline emissions calculation. **For element processes with less than three years operational data, all historical data shall be available (a minimum of one year data would be required).**”

As indicated in the paragraph 10, the methodology allows industrial facility with less than three years of operational data (i.e. industrial green field facility with less than three years of commissioning date), subject to operation for minimum of one year, to undergo fuel switch in the element process.

However in the paragraph 2 (C) of the methodology, the applicability condition stipulates that an existing system (i.e. usage of high intensive fossil fuel) must have been in operation for more than three years prior to start date of the project activity. This limits the implementation of fuel switch project activity within three years of commissioning an industrial facility.

The project promoter understands that the rationale behind setting the minimum time period for continued operation of existing system (i.e. high GHG intensive elemental process) is primarily to ensure that adequate baseline data is available.

In this regard, project promoter would request SSC WG, to amend the minimum time period of operation, of the existing system to one year from three years as indicated.

The operational data of one year prior to start of project activity could be used for the assessment of baseline performance. It is to be noted that one year of operational data have been accepted by SSC-WG (Refer paragraph 10 of AMS III.AN methodology).

On a separate note, Project Promoter would like to quote SSC\_531, where-in, a request for implementation of GHG mitigation project in a industrial facility with less than three years of operational data has been accepted by SSC-WG (applied under AMS III.Q, small scale methodology).

Project promoter would like to highlight that setting the minimum cap for time period of operation of an existing system to one year, provides an opportunity for the project promoters to implement fuel switch project activity in a industrial facility (with less than three years of operational data) by availing carbon credits. Thereby, contributing to Green House Gas (GHG) reduction.

#### **Proposed Revision:**

In AMS IIIA.N, version 2.0, paragraph 2 (C), the following revision is proposed *“The baseline is the continued use of existing system and where the system must have been in operation for a **minimum period of one year prior** to the start date of the project activity. This requirement is in order to ensure that adequate baseline performance data are available”*

#### **Revision 2:**

##### **Methodology Reference:**

As per AMS IIIA.N, version 2.0, paragraph 14, *“Project emissions due to consumption of fossil fuels and grid electricity can be calculated as follows:*

$$PE_y = \sum_i \{ (FC_{FF,i,y} * NCV_{FF,PJ} * EF_{FF,CO2,PJ}) + [EC_{elec,i,y} * (1 + TD_y) * EF_{Elec,CO2,y}] \} \quad (5)$$

Where:

$PE_y$	Project emissions in the project activity in year y in tCO <sub>2</sub> e
$FC_{FF,i,y}$	Amount of the fossil fuel consumed in element process i in the project activity in year y (mass or volume unit)
$EF_{FF,CO2,PJ}$	CO <sub>2</sub> emission factor for the fossil fuel (CO <sub>2</sub> /MJ)
$EC_{elec,i,y}$	Quantity of grid electricity consumed by the project activity in element process i in year y (MWh)
$TD_y$	Average annual technical grid losses (transmission and distribution) during year y for the grid serving the facility (fraction)
$EF_{Elec,CO2,y}$	Emission factor of grid electricity in year y calculated in accordance with the provisions in AMS-I.D (tCO <sub>2</sub> /MWh)

In the above equation, project emission due to consumption of grid electricity and fossil fuel has only been accounted. In case of consumption of electricity from a captive power plant, the corresponding emissions have not been accounted.

In this regard, project promoter would like to request SSC WG, to consider emissions from electricity consumption by project activity in the project emission calculation, where-in the source of electricity consumed is captive power plant.

#### **Proposed Revision:**

In AMS IIIA.N, version 2.0, paragraph 14, the following revision is proposed

*“Project emissions due to consumption of fossil fuels and auxiliary electricity can be calculated as follows:*

$$PE_y = PE_{FF,i,y} + PE_{elec,i,y}$$

Where:

$PE_y$	Project emissions in the project activity in year y in tCO <sub>2</sub> e
$PE_{FF,i,y}$	Project emissions in element process i in the project activity due to consumption of fossil fuel in the year y (tCO <sub>2</sub> )
$PE_{elec,i,y}$	Project emissions in element process i in the project activity due to electricity consumption in year y (tCO <sub>2</sub> )

$$PE_{FF,i,y} = \sum_i (FC_{FF,i,y} * NCV_{FF,PJ} * EF_{FF,CO2,PJ})$$

$PE_{FF,i,y}$  Project emissions in element process  $i$  in the project activity due to consumption of fossil fuel in the year  $y$  (tCO<sub>2</sub>)

$FC_{FF,i,y}$  Amount of the fossil fuel consumed in element process  $i$  in the project activity in year  $y$  (mass or volume unit)

$NCV_{FF,PJ}$  Net calorific value for the fossil fuel during the year  $y$  (MJ/mass or volume)

$EF_{FF,CO2,PJ}$  CO<sub>2</sub> emission factor for the fossil fuel (CO<sub>2</sub>/MJ)

Calculation of  $PE_{elec,i,y}$ :

The emissions include electricity consumption (including auxiliary use),  $PE_{elec,i,y}$  associated with the project activity, calculated as per the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”.

#### **Recommendation by the SSC WG:**

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

Please refer to paragraph 23(a) of the meeting report of the SSC WG 40  
<[http://cdm.unfccc.int/Panels/ssc\\_wg](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 (SSC WG) of the CDM Executive Board would like to thank the author for the submission.

With regards to the request to revise the applicability condition under paragraph 2(c) of AMS-III.AN (version 02), the SSC WG would like to point out that the condition that the existing system has been in operation for three years and is required not only to ensure that adequate baseline performance data are available, but also to ensure that the baseline scenario is the continued operation of the existing equipment with the historical fuel. Thus, the SSC WG agreed not to accept this request. Operational history could be documented with energy use data, production output data, operating days, records etc.

Furthermore, it is noted that in response to SSC\_531 SSC WG addressed the issue related to data availability and accepted a minimum of one year for the data required for baseline determination while reaffirming that three years of operational history is required.

Regarding the second request related to including a reference to the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” in AMS-III.AN for calculating project emissions, the SSC WG agreed to include this change in a future revision of the methodology.

Signature of SSC WG Chair: Mr. Martin Cames

Date: 19/04/2013

Signature of SSC WG Vice-Chair: Mr. Washington Zhakata

Date: 19/04/2013

**SECTION TO BE FILLED IN BY THE UNFCCC SECRETARIAT**

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**History of the document**

<b>Version</b>	<b>Date</b>	<b>Nature of revision(s)</b>
01.1	12 April 2012	Editorial changes to include new logo and other improvements.
01.0	2005	Initial publication.
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Form <b>Business Function:</b> Methodology		