

 <b>Eventual</b>	<p align="center"><b>CDM: Proposed new methodology expert form (version 04)</b>  <i>(To be used by methodology experts providing desk review for a proposed new methodology)</i></p>	
<i>Name of expert responsible for completing and submitting this form</i>	<p align="center">Pedro Maldonado</p>	
<i>Related F-CDM-NM document ID number</i>	<p align="center">NM0092</p>	
<p><i>Note to those completing this form, as applicable: Please provide recommendations on the proposed new baseline and monitoring methodologies based on an assessment of CDM-NMB and CDM-NMM and of their application in sections A to E of the draft CDM-PDD, desk reviews and public input. Please ensure that the form is entirely filled and that arguments and expert judgements are substantiated.</i></p>		
<p><b>A. Evaluation of the proposed new methodologies by desk reviewers:</b></p>		
<p><b>I. Evaluation of the proposed new baseline methodology:</b></p>		
<p>Title of new baseline methodology:&gt;&gt;"Baseline Methodology for energy efficiency through technological improvements in the metals production industry through smelting"</p>		
<p>i. Conditions under which this methodology is applicable to other potential projects (e.g. project type, region, data availability):</p> <p>&gt;&gt; To insure the applicability of the proposed methodology to other project type and regions, the methodology should abandon the perception that no changes will arrive on the on-site-emissions and also maintain through the whole methodology development the simple adjusted OM approach in order to allow the application of the methodology to systems based mostly in renewable energy sources. In relation to the data availability, the methodology demands very basic data, less than what is required would conduct to an unacceptable CDM project</p> <p>ii. Strengths and weaknesses of the methodology:</p> <p>&gt;&gt; a) Potential strengths of the proposed methodology; the methodology is really simple to apply, conservative and transparent</p> <p>b) The weaknesses of the methodology arise from the excessive reference to other approved methodologies, the methodologies negligees the transmission and distribution losses, which can be important in many countries. Nevertheless, this methodology limitation reinforce the conservative approach of it.</p> <p>iii. Any changes needed to improve the methodology:</p> <p>a. Minor changes:&gt;&gt;1) It should provide references to the national and/or sectoral policies.</p> <p>2) The project proponent should be more specific in those cases where data will be obtained from sources other than the project proponent.</p> <p>3) Eventual changes in the on-site-fossil fuel consumption should be kept as a real possibility throughout the whole text and algorithms</p> <p>b. Major changes:&gt;&gt; 1) the methodology should be described in detail in each section, reference to methodology used to support the methodology, should be included only as reference, but not replacing the entire methodology description.</p> <p>2) The PDD is slightly misleading in the treatment of the on-site emissions (it is not clear that the project operation will not cause changes in the fuels consumption on site, page 32 equation 18- rev). Something similar arises with the evaluation of the Operating Margin, where the PDD suggests the use of the simple adjusted OM (in reference to the consolidated baseline methodology ACM0002), nevertheless the proponent opt for the simple OM approach, equation 21).</p>		

3) It is assumed that the baseline methodology ACM0002, the AM008 methodology, the SSC methodologies and the Consolidated Tool for Demonstration of Additionality support the proponent methodology. In my opinion, the proponent should be explicit about his own assumptions and methodological approaches, if he is applying for the approval of his own methodology.

4) The additionality test should be developed in detail, it is not sufficient to refer to other approved methodologies to support the proposed methodology.

## II. Evaluation of the proposed new monitoring methodology:

Title of new monitoring methodology: >> **Monitoring methodology for energy efficiency through technological improvements in the metals production industry through smelting**

- i. Conditions under which this methodology is applicable to other potential projects (e.g. project type, region, data availability):  
>>See AI i
- ii. Strengths and weaknesses of the methodology:  
>> a) Strengths:
  - The monitoring methodology is based on already approved methodologies for grid connected electricity generation (ACM0002 and other methodologies, where data required for the ACM0002 methodology is not available)
  - The monitoring methodology is based on the already approved SSC and AM008 methodologies for the emissions arising from the use of fossil fuel
  - The methodology is simple
 b) Weaknesses: The monitoring methodology don't consider the transmission and distribution losses, which is considered by the project proponent as a weakness, in my opinion this limitation provides an additional degree of conservatism to the methodology
- iii. Any changes needed to improve the methodology:
  - a. Minor changes:>>
  - b. Major changes:>>Changes to the baseline methodology suggested will affect the monitoring methodology to insure that both are consistent.

## B. Details of the evaluation of the proposed new methodology by the desk reviewer:

I. Proposed new baseline methodology (*specify title here*): >>"**Baseline Methodology for energy efficiency through technological improvements in the metals production industry through smelting**"

**(1) Short description of the methodology, including an assessment of which approach from paragraph 48 of the CDM modalities and procedures was used:**

a) *Describe the methodology:*

>>The methodology aims at evaluating the introduction of energy efficiency technologies in the metal industry, conducting to the reduction of the electricity consumption per product tonne, in this case of manganese alloy production. The methodology considers: the determination of baseline scenario and project additionality (based on the consolidated additionality tool developed by the CDM Methodology Panel) and the emission reduction. The emission reduction is obtained from the baseline and project scenarios. Due to the fact that the project is a grid-connected energy efficiency project, the methodology rely on the ACM0002 "Consolidated baseline methodology for grid connected electricity generation from renewable sources" to calculate project and baseline emissions.

*b) State the approach selected:*

>> It was selected the approach b) of the paragraph 48: "Emissions from a technology that represent an economically attractive course of action, taking into account barriers to investment"

*c) Indicate (in summary form) why the approach selected is the most appropriate. Please provide your expert judgement on the appropriateness of the selected approach to the project category:*

>> This approach is the most appropriated to evaluate the baseline emissions because it takes into consideration the local parameters defining the decisions affecting the emissions and the project additionality.

## **(2) Basis for determining the baseline scenario:**

*a) State whether the documentation explains how the baseline scenario is to be chosen and identified:*

>> Yes, the documentation explains how the baseline scenario is defined.

*b) State the basic underlying rationale for algorithms/formulae used (e.g. marginal vs. average basis) (see also section 4 below):*

>> The marginal approach is adopted to evaluate the emissions factor

*c) State whether the documentation explains how, through the use of the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario. If so, what are the tools provided by the project participants?*

>> Yes, the documentation explains how, through the methodology, it can be demonstrated that the project is additional. The project proponent adopt the consolidated "tools for the demonstration and assessment of additionality" (annex 1 of the 16<sup>th</sup> EB meeting report)

*d) State whether the basis for determining the baseline scenario and for assessing additionality is appropriate and adequate:*

>> Yes it is. The project proponent follows the referred consolidated tool properly

## **(3) Assessment of the description of the proposed methodology and its applicability**

*a) State whether the methodology has been described in an adequate manner:*

>> Yes, the methodology has been described adequately. The main components of the methodology and the detailed steps of it are described adequately. Nevertheless, it seems to me that the methodology should have been described in detail in each section, reference to methodology used to support the methodology should be included only as reference, but not replacing the entire methodology description

*b) State whether the proposed methodology is appropriate for the referred proposed project activity and the referred project context (described in Sections A - E of the draft CDM-PDD and submitted along with CDM-NMB):*

>> Yes it is appropriate for the proposed project, nevertheless the PDD is slightly misleading in the treatment of the on-site emissions (it is not clear that the project operation will not cause changes in the fuels consumption on site, page 32 equation 18- rev). Something similar arises with the evaluation of the Operating Margin, where the PDD suggests the use of the simple adjusted OM (in reference to the consolidated baseline methodology ACM0002), nevertheless the proponent opt for the simple OM approach, equation 21)

*c) State whether the application of the methodology could result in a baseline scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity.*

>> In principle, yes.

*Please explain:*

>> If it is considered the on-site emissions, the baseline scenario will include reasonably the anthropogenic emissions that would occur in the absence of the proposed project

**(4) Assessment of algorithms/formulae and type of data needed:**

*a) State whether the description of the methodology includes algorithms and generic formulae that can be applied to other potential project activities (if not, the proposed new methodology will be considered as a project-specific methodology):*

>>To be applied to other potential project activities, the methodology should include as mandatory the equations 7 and 8 and also make explicit the simple OM adjusted option to include electrical system based on energy renewable sources..

*b) Explain the spatial scope of data used to determine the baseline and whether the scope is appropriate:*

>>The spatial scope of data correspond to the installation, local, national and international level, depending if it refers to the alloy production, electricity consumption or process fuel consumption, local level for the evaluation of the project financial parameters, national for the discount rate and the grid emission factor and international for the default emission factors. Yes, the spatial scope is appropriate.

*c) Explain the vintage of data used (in relation to the duration of the project crediting period) and whether the vintage of data is appropriate, indicating the period covered by the data:*

>>In principle the period covered by the data is appropriate, except in the case of the fossil fuel utilized per tonne of metal produced

**(5) Definition of the project boundary related to the baseline methodology:**

*a) State how the project boundary is defined in terms of:*

*i) Gases and sources*

>>The project boundary is defined by any relevant CO2 emissions that could be affected by the proposed project

*ii) Physical delineation*

>>The spatial extent of the project boundary includes the project site and the electrical system affected by the proposed project activity.

*b) Indicate whether this project boundary is appropriate:*

>>Yes, the project boundary is appropriate

**(6) Key assumptions/parameters (including emission factors and activity levels) and data sources:**

*a) List the implicit and explicit key assumptions. Identify those, if any, which are problematic and explain:*

>>a) Information on acceptable IRR or discount rates are available from sources like business statistics or expert judgement. No problems with this assumption.

b) Conservative calculation of IRR, to be checked by the DOE. It is not detailed the steps to insure a conservative IRR

c) Emission factors, conversion factors o default data used should be obtained from scientific publications, specialized institutions and consultants, the IPCC, or other recognized sources or validated documents. In principle, no concerns with that, but it is missing reference to on site or country data. Also, it is considered the validation by the DOE

d) It is assumed that the baseline methodology ACM0002, the AM008 methodology, the SSC methodologies and the Consolidated Tool for Demonstration of Additionality support the proponent methodology. In my opinion, the proponent should be explicit about his own assumptions, if he is applying for the approval of his own methodology

This part, the additionality tests, of the proposed methodology should be developed longer

*b) State whether the key assumptions are arrived at in a transparent manner:*

>>See point a) above

c) Give your expert judgement on whether the assumptions/parameters are adequate:

>>If we consider the references to the approved methodologies as part of the proposed methodology, the assumptions/parameters are adequate

d) Indicate which data sources are used and how the data are obtained (e.g. official statistics, expert judgement):

>>Some data will be elaborated by the project proponent, information from the grid operator, IPCC data, validated documents, expert information. Perhaps the project proponent should be more specific in those cases where the data will be obtained from sources other than the project proponent

e) Give your expert judgement on whether the data used are adequate, consistent, accurate and reliable:

>>Data sources look adequate, consistent, accurate and reliable

f) State possible data gaps:

>>I don't identify any significant data gaps

#### **(7) Assessment of uncertainties:**

a) State whether the methodology includes an assessment of uncertainties regarding:

i) The basis for determining the baseline scenario:

>>Yes, the methodology considers the possibility of not taking into account all plausible baseline scenarios and also the possibility of a non-conservative financial analysis

ii) Algorithms/formulae:

>>No uncertainties are considered in this case

iii) Key assumptions:

>>Most assumptions look reasonably certain except those concerning the evaluation of the additionality, theme insufficiently developed to my understanding

iv) Data:

>>The project proponent considers the possibility of insufficient quality of data used, mainly for the evaluation of the baseline and project emissions and the emission factors collected from the literature

b) State whether the uncertainties presented are reasonable:

>>The project proponent identifies certain sources of uncertainties but no assessment of it is included. In most of the cases it is mentioned that the DOE should check the key factors and assumptions. It is not the best approach

#### **(8) Leakage:**

a) State how the baseline methodology addresses any potential leakage due to the project activity:

>>The methodology analyses the following potential leakages:

- 1) Electricity generation; as it is defined by ACM0002 eventual leakages arise from plant construction, fuel handling and land inundation (for hydroelectric generation – not applicable in this case). In applying the methodology no leakage is considered for those activities. I agree with this approach.
- 2) On site fossil fuel leakage; because it is assumed that no main changes in fossil fuel consumption will arise because of the project, no leakage should arise. Nevertheless it is foreseen that the monitoring activities should verify if this is true (differences in the fuel consumption due to the project activities), but it is not mentioned how the leakage should be evaluated if this situation occurs.
- 3) Other leakage sources; no other forms of leakage were identify by the project proponent, but this assumption should be verified once the project is underway

b) Indicate whether the treatment for leakage is appropriate and adequate:

>>The basic treatment of the leakage is appropriate; perhaps the eventual change in fossil fuel

consumption should be included in a more assertive way. Even if it is not critical, this situation is detected in most sections concerning this point.
<p><b>(9) Transparency and “conservativeness”:</b></p> <p><i>a) Indicate whether the baseline methodology was developed in a transparent way:</i>          &gt;&gt;The baseline methodology is transparent because the baseline and the project scenarios are built based on real and verifiable data. When default data is used it is referred to IPCC or other internationally recognized institutions</p> <p><i>b) State whether the baseline methodology is conservative:</i>          &gt;&gt;Because the methodology refers to approved methodologies where the conservative approach is adopted, the present baseline methodology is also conservative. Again the proposed methodology should be by itself conservative not through the reference methodologies</p>
<p><b>(10) Potential strengths and weaknesses of the proposed baseline methodology (please explain):</b></p> <p>&gt;&gt;a) Potential strengths of the proposed methodology; the methodology is really simple to apply, conservative and transparent</p> <p>b) The weaknesses of the methodology arise from the excessive reference to other approved methodologies, the methodologies neglect the transmission and distribution losses, which can be important in many countries. Nevertheless, this methodology limitation reinforce the conservative approach of it .</p>
<p><b>(11) Other considerations, such as a description of how national and/or sectoral policies and circumstances have been taken into account (please explain):</b></p> <p>&gt;&gt;Even if there isn't any particular reference to the national and/or sectoral policies, the national circumstances are taking into consideration: a) the low price of energy (a market barrier for this type of projects), (b) the thermal predominance of the power system, (c) the adoption of the simple adjusted OM approach instead of the dispatch data analysis</p>
<p><b>(12) Applicability of the proposed methodology across project types and regions (please indicate):</b></p> <p>&gt;&gt;To insure the applicability of the proposed methodology to other project type and regions, the methodology should abandon the perception that no changes will arise on the on-site-emissions and also maintain through the whole methodology development the simple adjusted OM approach in order to allow the application of the methodology to systems based mostly in renewable energy sources.</p>
<p><b>(13) Any other comments:</b></p> <p><i>a) State whether any other source of information (i.e. other than documentation on this proposed methodology available on the UNFCCC CDM web site) has been used by you in evaluating this methodology. If so, please provide specific references:</i>          &gt;&gt;No other source of information (different from the present project document) was used for this evaluation</p> <p><i>b) Indicate any further comments:</i>          &gt;&gt;No other comments</p>
<p><b>II. Proposed new monitoring methodology (specify title here):</b> &gt;&gt;Monitoring methodology for energy efficiency through technological improvements in the metals production industry through smelting</p>
<p><i>In respect of the proposed new monitoring methodology, evaluate each section of CDM-NMM to the draft CDM-PDD. Please provide your comments section by section:</i></p>
<p><b>(1) Brief description of new methodology:</b></p> <p><i>Describe new methodology:</i>          &gt;&gt;The monitoring methodology was conceived to monitor emissions resulting from the baseline and project activities arising from project implementation. The monitoring of the emission related to the grid</p>

electricity generation, relies on the monitoring methodology defined by the already approved ACM0002 methodology and, if the required data is not available, other approved methodologies could be applied.

If changes in on-site fossil fuels are identified in the project scenario related to the baseline scenario, the emission source should be monitored using procedures similar to those settled by the SSC methodologies and the approved AM0008 methodology

**(2) Key assumptions/parameters:**

*a) List the implicit and explicit key assumptions. Identify those, if any, which are problematic and explain:*

>>The methodology key assumptions are:

- 1) Quantity of metal production is known with sufficient precision and provided by the project proponent. I don't have any concerns with this assumption,
- 2) Quantity of grid electricity consumed by tonne of metal produced is known accurately and provided by the project proponent. No concerns about this assumption,
- 3) Quantity of any fossil fuel consumed by tonne of metal produced, to be provided by the project proponent. No concerns.
- 4) The IPCC emissions factor can be utilized for any fossil fuel consumed for the metal production. No concerns
- 5) The grid emission factor to be provided by the project proponent, not explicitly mentioned by the proponent, he should add that those emission factors would be calculated based on data provided by the grid operator. If this is really the project proponent idea, I don't have any concerns

*b) State whether the key assumptions are arrived at in a transparent manner:*

>>The key assumption are established in a transparent manner, even if the project proponent didn't develop a special section to explicit its assumptions

*c) Give your expert judgement on whether the assumptions/parameters are adequate:*

>>Yes, the assumptions are adequate

**(3) Data sources and data quality:**

*a) Indicate which data sources are used and how the data are obtained (e.g. official statistics, expert judgement):*

>>Mainly the data source used will be provided by the project proponent and IPCC, for the default emission factors. It should be added the data provided by the grid operator required for the grid emission factor

*b) Give your expert judgement on whether the data used are adequate, consistent, accurate and reliable:*

>>Yes, the data used are adequate, consistent, accurate and reliable

*c) State possible data gaps:*

>> I didn't find any



<p><b>(4) Assessment of the description of the proposed methodology and its applicability:</b></p> <p>a) <i>State whether the proposed methodology has been described in an adequate manner:</i>          &gt;&gt;Yes, the proposed methodology has been described adequately</p> <p>b) <i>State whether the proposed methodology is appropriate for the referred proposed project activity and the referred project context (described in Sections A - E of the draft CDM-PDD and submitted along with CDM-NMM):</i>          &gt;&gt;Yes, the proposed methodology is appropriate for the proposed project and the project context</p> <p>c) <i>State whether this proposed monitoring methodology is compatible with the proposed baseline methodology described in CDM-NMB of the draft CDM-PDD:</i>          &gt;&gt;Yes, the proposed monitoring methodology is compatible with the proposed baseline methodology described in CDM-NMB of the draft CDM-PDD</p>
<p><b>(5) Leakage (please elaborate, if appropriate):</b></p> <p>&gt;&gt;The monitoring methodology identifies three eventual leakage sources:</p> <p>a) Electricity generation; based on ACM0002, leakage could be related to the plant construction, fuel handling and land inundation. The methodology proposed doesn't consider any significant leakage due to these causes and also affirm that no credits shall be claimed by the project if these emissions are reduced below the level of the baseline scenario. I agree with the methodology approach.</p> <p>b) On site fossil fuel leakage; the methodology assumes that no changes in the fossil fuel consumption per tonne produced will arise and if this assumption is not correct, leakage should be evaluated (it is not indicated how the eventual leakage could be estimated). I agree with the methodology approach, but it seems to me that the methodology should be more explicit to describe how the eventual leakage should be evaluated.</p> <p>c) Other leakage sources; the methodology doesn't anticipate any other off-site leakage as a result of the project activities, but this assumption should be verified once the project had been developed. I agree with the methodology approach</p>
<p><b>(6) Quality assurance and control procedures (please explain):</b></p> <p>&gt;&gt;The methodology covers appropriately the QC and QA procedures for: metal production, grid electricity consumption, fossil fuel utilised and emissions factors. The corresponding data have a low level of uncertainty.</p>
<p><b>(7) Potential strengths and weaknesses of the proposed monitoring methodology (please explain):</b></p> <p>&gt;&gt;a) Strengths:</p> <ul style="list-style-type: none"> <li>• The monitoring methodology is based on already approved methodologies for grid connected electricity generation (ACM0002 and other methodologies, where data required for the ACM0002 methodology is not available)</li> <li>• The monitoring methodology is based on the already approved SSC and AM008 methodologies for the emissions arising from the use of fossil fuel</li> <li>• The methodology is simple</li> </ul> <p>b) Weaknesses: The monitoring methodology don't consider the transmission and distribution losses, which is considered by the project proponent as a weakness, in my opinion this limitation provide an additional degree of conservatism to the methodology</p>
<p><b>(8) Applicability of the proposed methodology across project types and regions (please indicate):</b></p> <p>&gt;&gt;See BI 12</p>
<p><b>(9) Any other comments:</b></p> <p>a) <i>State whether any other source of information (i.e. other than documentation on this</i></p>



*proposed methodology available on the UNFCCC CDM web site) has been used by you in evaluating this methodology. If so, please provide specific references:*

>>No other source of information (different from the proposed methodology document) has been used for my evaluation

*b) Indicate any further comments:*

>>No other comments

Signature of desk reviewer .....

Date:    /    /

Information to be completed by the secretariat	
F-CDM-NMex doc id number	
Date when the form was received at UNFCCC secretariat	
Date of transmission to the Meth Panel and EB	
Date of posting in the UNFCCC CDM web site	