

 <p style="text-align: center;">CDM: Proposed new methodology expert form (version 04) (To be used by methodology experts providing desk review for a proposed new methodology)</p>	
Name of expert responsible for completing and submitting this form	Pedro Maldonado
Related F-CDM-NM document ID number	NM0118
<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>	
A. Evaluation of the proposed new methodologies by desk reviewers:	
I. Evaluation of the proposed new baseline methodology:	
Title of new baseline methodology:>>"Specific consumption rate projection for demand-side brewery energy saving processes".	
<p>i. Conditions under which this methodology is applicable to other potential projects (e.g. project type, region, data availability):</p> <p>>>The applicability conditions stated by the methodology proponent should be improved or redone, because, to my understanding, the conditions specified by the proponent describes the project or some of the additionality tests suggested rather than to define the applicability of the methodology</p> <p>ii. Strengths and weaknesses of the methodology:</p> <p>>> The methodological approach is simple, but algorithms and formulae proposed is rather confusing, must be improved</p> <p>iii. Any changes needed to improve the methodology:</p> <p>a. Minor changes:>>i) It is suggested to change the title of the methodology (as an eventual suggestion see BI),</p> <p>ii) Some variables should be defined more clearly and explicitly (i.e. EQ [electricity]),</p> <p>iii) It should be demonstrated or argued that fugitive emission linked to fossil fuels supply are insignificant,</p> <p>iv) The applicability conditions stated by the proponent should be improved or redone (see AIi))</p> <p>b. Major changes:>>i) The approach adopted for the carbon emission factor for grid electricity, considering BM = 0, should be justified deeper or consider the combined margin emission factor,</p> <p>ii) The presentation of the BL methodology should be improved (see BI3a)),</p> <p>iii) The algorithms and formulae are rather project-specific, should be changed to insure their applicability to other potential project activities,</p> <p>iv) Uncertainties should be developed deeper (see BI7a i) and ii)</p> <p>iv) The applicability conditions stated by the project proponent should be changed (see BI12).</p>	
II. Evaluation of the proposed new monitoring methodology:	
Title of new monitoring methodology: >> Specific consumption rate projection for demand-side brewery	

energy saving processes

- i. Conditions under which this methodology is applicable to other potential projects (e.g. project type, region, data availability):
>>See AIi)
- ii. Strengths and weaknesses of the methodology:
>> The monitoring methodology avoids using default values and try as much as possible to measure the relevant parameters. In a certain way, the weakness is entailed to their strengths, the cost of measurements required
- iii. Any changes needed to improve the methodology:
 - a. Minor changes:>>Changes in the monitoring methodology are linked to the changes suggested for the BL methodology. As it was mentioned in point AIiii) a) the methodology title should be changed or improved
 - b. Major changes:>> Changes in the monitoring methodology are linked to the key changes suggested for the BL methodology. This is not applicable to the methodology presentation itself because it stands well compared to the BL methodology, so it can be kept as it is.

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

I. Proposed new baseline methodology (specify title here): >> Specific consumption rate projection for demand-side brewery energy saving processes.

I suggest the proponent change the methodology title, to something like: "Baseline methodology for the energy efficiency improvement to the beer production through the introduction of an integrated energy conservation system"

(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 is described by three key elements: a) applicability conditions; b) additionality demonstration and baseline scenario and c) analytical development of the baseline emissions

b) State the approach selected:

>>Emissions from a technology that represents 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:

>>The approach selected by the proponent is the most appropriate because the project is based on the integration of an energy efficiency system in an industrial process, which will be not possible without the CER revenue because the decision-making processes in the company and in the country favours the expansion, in this case, beer production instead of energy conservation investments. I consider that the approach is appropriate.

(2) Basis for determining the baseline scenario:

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

>>Yes. In order to identify the baseline scenario the methodology analyses the technological options considering the energy saving and wastewater treatment alternatives that could be adopted by the project proponent. Being identified those options, the methodology don't consider those options that no comply with the local or national environmental regulations, don't consider those technological unfeasible options and select the economically most attractive course of action consistent with the previous conditions.

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

>>The baseline emissions are evaluated based on the marginal approach

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?

>>See BI2a. Basically the methodology provides the sequential steps to identify the baseline scenario and, by opposition, states that the project activity is additional if it is not the baseline scenario. The following steps are suggested by the project proponent to evaluate if the project activity is additional: a) Anaerobic treatment of wastewater and biogas recovery is not mandatory by the national regulations, also it considers the impacts on the wastewater treatment caused by an eventual increase of beer production, b) the integrated energy conservation system proposed (combination of re-compressed exhaust steam to be reused in the process, cascade cooling and utilisation of biogas as fuel resulting from the wastewater treatment) is not a common technology in the host country brewery cluster and even less in the beer facility object of the present CDM project activity.

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

>>Yes it is appropriate and adequate

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

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

>>The methodology presentation is a little confusing and should be improved; arguments used to define the baseline and project scenarios are developed several times in a rather similar way.

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 the proposed methodology is consistent with the proposed project described by the draft CDM-PDD

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.

>>Yes, the application of the methodology could be a reasonable representation of the anthropogenic GHG emission levels reaching to in the absence of the proposed project activity

Please explain:

>>The baseline scenario lead to select the economically most attractive course of action without CER and demonstrates that the integrated energy saving technology and the anaerobic wastewater treatment and biogas recovery would not be possible without the mentioned CER resources.

(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):

>>a) The algorithms and generic formulae are rather project-specific methodology.

b) The project proponent should strive to develop a more general approach, valid not only for the beer production but also to other projects. If it is maintained the specific approach some variables should be defined more clearly and explicitly, variables should be defined in a straightforward way.

c) The methodology proponent argues that the energy savings technologies proposed would not affect the construction of new plants, again this is assuming only the proposed project, but this argument is ignoring the replication effect if the technologies are widely used. The BM=0 approach should be justified deeply.

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

>>The spatial scope of data used to determine the baseline is defined by the facility and site, including the waste water treatment system and the electricity supply (internal and grid generation). It should be proved that no fugitive emissions are relevant (production and transport of coal, diesel oil, heavy oil and natural gas)

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:*

>>Data will be provided by the beer producer (beer production, energy consumption, organic waste disposed and methane), local fuel supplier and grid operator

(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 considers fossil fuel combustion for heat/steam production, fossil fuel combustion for internal electricity generation, fossil fuel combustion for grid generation, methane from wastewater treatment. Other minor emissions are mentioned (N₂O emissions from fossil fuel combustion and transport of fuels) but they are considered negligible.

ii) *Physical delineation*

>>The facility and site and the external power grid

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

>>In principle yes. Nevertheless, it should be convenient to demonstrate that fugitive emissions are irrelevant.

(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:*

>>It is assumed as known:

- a) beer production and beer mix, no problems with these assumptions.
- b) fossil fuels and electricity consumed, no problems with these assumptions.
- c) specific energy consumption rate, this assumption is relatively more problematic because is estimated by a regression analysis, then uncertain results could be obtained,
- d) fossil fuel carbon emission factor, to be obtained from the fuel supplier, it is no obvious that the fuel supplier will be able to provide the methodology user with proper emission factors (IPCC default data could be used)
- e) carbon emission factor of grid electricity to be provided by the grid operator, this is the most problematic assumption, because it depends on the dispatch control and even worse, the methodology proponent assumes BM = 0
- f) amount of organic waste disposed and biomethane emissions, is also problematic to know exactly, but if no production increase is foreseen, no changes would arise between BL and project emissions

(though the proponent affirms that the project would reduce slightly these emissions). It is problematic if production changes are foreseen,

g) leakage effects are negligible, no problems with this assumption

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

>>Yes, the key assumptions are explicitly developed

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

>>In principle yes. What should be developed deeper or even changed is the BM = 0 approach

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

>>Most data is internal, official (grid operator) or fuels supplier. Eventually some IPCC default data could be used

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

>>In principle yes, see BI6a)

f) State possible data gaps:

>>None

(7) Assessment of uncertainties:

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

i) The basis for determining the baseline scenario:

>>No uncertainties have been considered in determining the baseline scenario, a deeper treatment of uncertainties should be performed at least, so it should be done explicitly

ii) Algorithms/formulae:

>>The uncertainties were considered in the case of the: a) specific energy consumption, basically in relation to the beer production expansion, changes in the production mix or changes in the production process, b) carbon emission factor due to the differences on the quality and chemical content of the different fuels, c) methane emissions are very difficult to evaluate if a non-lagoon type of wastewater treatment is used, no CER are claimed (before biogas recovery implementation), then, it is a conservative approach

iii) Key assumptions:

>>see 6a) and 7a)ii)

iv) Data:

>>Already developed see 6a)

b) State whether the uncertainties presented are reasonable:

>>Basically yes

(8) Leakage:

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

>>The methodology considers negligible the possible leakage

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

>>Yes the treatment of leakage is appropriate

(9) Transparency and “conservativeness”:

a) Indicate whether the baseline methodology was developed in a transparent way:

>>Yes. The most critical assumptions have been identified and external experts are suggested to provide with their judgements.

<p><i>b) State whether the baseline methodology is conservative:</i></p> <p>>>Not considering CERs (before biogas recovery implementation) for the eventual methane reduction is a conservative approach</p>
<p>(10) Potential strengths and weaknesses of the proposed baseline methodology (please explain):</p> <p>>>The methodological approach is simple, but algorithms and formulae proposed are rather confusing, must be improved</p>
<p>(11) Other considerations, such as a description of how national and/or sectoral policies and circumstances have been taken into account (please explain):</p> <p>>>Environmental regulation and energy efficiency (EE) policies and EE sectoral circumstances have been taken into account.</p>
<p>(12) Applicability of the proposed methodology across project types and regions (please indicate):</p> <p>>>The applicability conditions stated by the methodology proponent should be improved or redone, because, to my understanding, the conditions specified by the proponent describe the project or some of the additionality tests suggested rather than to define the applicability of the methodology</p>
<p>(13) Any other comments:</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></p> <p>>>none</p> <p><i>b) Indicate any further comments:</i></p> <p>>>none</p>
<p>II. Proposed new monitoring methodology (specify title here): >> Specific consumption rate projection for demand-side brewery energy saving processes.</p> <p>I suggest the proponent change the methodology title, to something like: "Monitoring methodology for the energy efficiency improvement to the beer production through the introduction of an integrated energy conservation system"</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>(1) Brief description of new methodology:</p> <p><i>Describe new methodology:</i></p> <p>>>The methodology is based on monitoring the project energy savings and the monitoring of lagoon emission reductions.</p> <p>In order to evaluate the energy savings impacts it is foreseen, before and after the project implementation, to: determine monthly the beer production, register the energy consumption by source.</p> <p>For lagoon CH₄ emissions (in the baseline scenario), sampling (before implementation of the project) is used with adjustment by organic waste measured afterwards</p>
<p>(2) Key assumptions/parameters:</p> <p><i>a) List the implicit and explicit key assumptions. Identify those, if any, which are problematic and explain:</i></p> <p>>>It is obvious that no significant assumptions have been added to those specified in the baseline methodology. See my comments in point BI6a)</p> <p><i>b) State whether the key assumptions are arrived at in a transparent manner:</i></p> <p>>>See BI6b)</p> <p><i>c) Give your expert judgement on whether the assumptions/parameters are adequate:</i></p>

<p>>>See BI6c)</p>
<p>(3) Data sources and data quality:</p> <p><i>a) Indicate which data sources are used and how the data are obtained (e.g. official statistics, expert judgement):</i></p> <p>>>Data to be used will be provided by the project operator, fossil fuel supplier, grid operator, expert judgement or calculated based on production data</p> <p><i>b) Give your expert judgement on whether the data used are adequate, consistent, accurate and reliable:</i></p> <p>>>See BI6e)</p> <p><i>c) State possible data gaps:</i></p> <p>>> None</p>
<p>(4) Assessment of the description of the proposed methodology and its applicability:</p> <p><i>a) State whether the proposed methodology has been described in an adequate manner:</i></p> <p>>>Yes, I have less concerns than in the case of the baseline methodology description</p> <p><i>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-NMM):</i></p> <p>>> Yes the proposed methodology is consistent with the proposed project described by the draft CDM-PDD</p> <p><i>c) State whether this proposed monitoring methodology is compatible with the proposed baseline methodology described in CDM-NMB of the draft CDM-PDD:</i></p> <p>>>Yes it is</p>
<p>(5) Leakage (please elaborate, if appropriate):</p> <p>>>No leakage is considered by the methodology. I don't have significant concerns in relation to this proponent's statement</p>
<p>(6) Quality assurance and control procedures (please explain):</p> <p>>>In principle I have no concerns except with the biomethane evaluation</p>
<p>(7) Potential strengths and weaknesses of the proposed monitoring methodology (please explain):</p> <p>>>The monitoring methodology avoids using default values and try as much as possible to measure the relevant parameters. In a certain way, the weakness is entailed to their strengths, the cost of measurements required</p>
<p>(8) Applicability of the proposed methodology across project types and regions (please indicate):</p> <p>>>The applicability conditions stated by the methodology proponent should be improved or redone, because, to my understanding, the conditions specified by the proponent describe the project or some of the additionality tests suggested rather than to define the applicability of the methodology itself</p>
<p>(9) Any other comments:</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></p> <p>>>none</p> <p><i>b) Indicate any further comments:</i></p> <p>>>none</p>

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	