



**CDM: Proposed New Methodology**  
**Meth Panel summary recommendation to the Executive Board**  
**(version 01)**

*(To be used by the Meth Panel in addition to the full recommendation to the Board regarding a proposed new methodology (F-CDM-NMmp))*

<i>Date and number of Meth Panel meeting:</i>	17 - 19 October 2005 Meth 18
<i>Related F-CDM-NM document ID number (electronically available to EB members)</i>	F-CDM-NM0118: "Introduction of integrated demand-side energy saving system for existing beer brewing system"
<i>Title of proposed new baseline methodology:</i>	"Introduction of integrated demand-side energy saving system for existing beer brewing system"
<i>Title of underlying project activity:</i>	"The model project for renovation to increase the efficient use of energy in brewery"
<i>History of submission: (new section)</i>	First submission (Round 11, 13 July 2005) Clarification received as response to preliminary recommendation at Meth Panel 17 Final recommendation at Meth Panel 18
1. One sentence describing the purpose of the methodology. <i>(new section)</i>	
>> Project activities in the brewery sector that install integrated retrofit high energy efficiency applications (both on the demand- and supply-side) in the beer brewery production process.	
2. Suggested applicability of methodology <i>(former section A.I and B.I)</i>	
<ul style="list-style-type: none"> <li>Install integrated retrofit high energy efficiency applications (both on the demand- and supply-side) in the beer brewery production process if it does not result in new production facility with separate/new energy utility system.</li> <li>The project does not set its crediting period beyond the physical capacity of the existing energy supply system or other equipment being replaced or retrofitted as part of the project activity.</li> <li>The project does not export electricity or heat.</li> <li>The project activity does not emit waste water that decomposes under anaerobic conditions.</li> <li>The project activity does not involve power and heat generation in combined heat and power (CHP) plants.</li> <li>Significant data on energy consumption, beer production and efficiencies of the existing process prior to project implementation are available.</li> </ul>	
3. Summary description of baseline methodology . Short statements on each on how the proposed methodology: <i>(chooses the baseline scenario, demonstrates additionality, calculates baseline emissions, calculates project emissions, calculates leakage, calculates emission reductions)</i> <i>(former section B.I.)</i>	
>> The methodology identifies the most likely baseline scenario with a thorough procedure that is based on the procedure in the draft consolidated methodology for coal mine methane recovery. The methodology estimates baseline emissions employing regression models. The regression models quantify the relation between beer production levels and specific energy consumptions of electricity and heat. Historical data for specific energy consumptions and beer production for the past 3 years are used to fit the regressions. The specific energy consumption as a function of the volume of beer produced (regression curve) are fixed ex-ante and are applied	

throughout the crediting period.

Project emissions are estimated as the amount of annual beer production, times the specific ex-post measured energy intensity of beer production, times the CO<sub>2</sub> emission factor of the fuel/electricity taking, into account T&D losses for the emission factor of external electricity. No significant leakage is expected and therefore it is not taken into account.

4. Suggested "recommendation level" for the baseline and monitoring methodologies (A, B or C).  
(former section A.I and A.II.)

>> B. To be reconsidered.

5. Major reasons for B/C choice from the proposed baseline methodology: (outline the major reasons for needing revision/rejection)  
(former section A.I.)

- **Description of the methodology.** The description of the methodology has improved considerably but still needs further improvements. Particularly, a number of terms (e.g. "theoretical energy audit model") are introduced but not further explained;
- **Identification of the baseline scenario.** A procedure to determine the most likely baseline scenario is provided based on the draft consolidated methodology for coal mine methane recovery. While this procedure is in principle appropriate, the identification of plausible baseline scenario candidates is not appropriate, since they involve different production levels of beer. Baseline scenario candidates for this type of energy efficiency improvements are only comparable if they refer to the same amount of output (beer production) as in the project scenario;
- **Regression analysis.** The methodology builds on a regression analysis, which has significantly improved. However, there is a problem with the regression since it is fit based on monthly data, but the predictions of specific energy consumptions are made based on annual production levels. This is not correct and monthly data should be used for predicting baseline specific energy consumptions. It is also quite unclear how the pilsner-equivalent energy consumption factor is determined from the energy audit model. More description and requirements of the model should be provided as previously mentioned. The methodology now acknowledges quantification of uncertainties and proposes to use either 80% or 95% confidence level. The Meth Panel suggests the use of 95% confidence level to be consistent with other approved methodologies. Also, the methodology should present equations to be used in estimating uncertainties in predictions of the regression. Also, the methodology should restrict the use of the regression to beer production range of the historical data used to fit the regression;
- **Applicability conditions.** Applicability condition number 6 is only applicable for the monitoring methodology. This condition also applies to the baseline methodology since the regression which is used to estimate baseline emissions also uses 3 years operation data. Also, an applicability condition should be added to limit the use of methodology to non-expansion of existing capacity of the energy utility system. Otherwise, a proposal should be provided to account for cases where energy intensity decreases as a result of increased beer production which requires expansion of capacity of existing utility system;
- **Lifetime of existing equipment.** In the applicability conditions it is stated that the crediting period should not be set beyond the physical lifetime of the existing system. This is appropriate but still needs further elaboration in the proper methodology. The methodology should provide methodological options how project participants can determine the lifetime of the existing equipment.

6. Any major issues arising from the assessment of the proposed monitoring methodology (if different to those already raised above).  
(former section A.II.)

>> None.

7. Any other issues arising to be stated, if necessary (e.g. cross-cutting, general or precedent-setting issues raised by the proposed new baseline or monitoring methodology).

>> None



Signature of Meth Panel Chair .....

Date: 24/10/05 (Jean-Jacques Becker)



Signature of Meth Panel Vice-Chair .....

Date: 24/10/05 (José Miguez)

**Information to be completed by the secretariat**

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