

REPORT OF THE NINETEENTH MEETING OF THE METHODOLOGIES PANEL

UNFCCC Headquarters, Bonn, Germany

31 January- 3 February 2006

I. RECOMMENDATIONS BY THE METHODOLOGIES PANEL TO THE EXECUTIVE BOARD

A. Opening of the meeting and adoption of agenda

1. The Methodologies Panel (Meth Panel) adopted the agenda as proposed.

B. Consideration of proposed new methodologies

2. The Meth Panel considered the proposed new methodologies for following cases:

NM0038-rev: Methane Gas Capture and Electricity Production at Chisinau Wastewater Treatment Plant, Moldova
NM0080-rev: Natural gas based grid connected 1050 MW combined cycle power generation project for Torrent Power Generation Limited at Akhakhol Gujarat
NM0082-rev: Khon Kaen fuel ethanol project
NM0105-rev: Bus Rapid Transit System for Bogotá, Colombia: TransMilenio Phase II to IV
NM0107-rev: Waste Gas-based Cogeneration Project at Alexandria Carbon Black Co., Egypt
NM0111: Baseline Methodology for catalytic N ₂ O destruction in the tail gas of Nitric Acid Plants
NM0112-rev: Increased electricity generation from existing hydropower stations through Decision Support System optimization in Azerbaijan
NM0117-rev: Nanjing Chemical Industries Co Ltd (NCIC) Nitrous Oxide Abatement Project
NM0123-rev: Substitution of raw material in cement processing
NM0124-rev: PFC emission reductions at ALUAR Aluminio Argentino
NM0126: National Fertilizers Limited (NFL) Nitrous Oxide Abatement Project
NM0121: Bumbuna Hydroelectric Project
NM0130: The Nho Que Hydropower Project
NM0127: PT Navigat Organic Energy Indonesia Integrated Solid Waste Management (GALFAD) Project in Bali, Indonesia
NM0129: Sunflower Methyl-Ester Biodiesel Project in Thailand
NM0131: Peruvian Fuel-Switching Project
NM0132: Industrial fuel switching from petroleum fuels to natural gas without extension of capacity and lifetime of the facility where barriers to switching exist
NM0133: Grid-connected power generation project using biomass fuel from newly developed dedicated plantations, in Nakhon Ratchasima Province, Thailand
NM0134: Paramonga CDM Bagasse Boiler Project
NM0135: Reducing SF ₆ Emissions in High-Voltage Transmission/Distribution Systems in Nigeria
NM0136: Reduction of Transmission and Distribution Losses in Nigeria
NM0137: Energy Efficiency Improvement in Cement Plants
NM0138: American Israel Paper Mill (AIPM) Natural Gas Cogeneration
NM0139: Methane Leak Reduction From Natural Gas Pipeline in Georgia
NM0140: Mondi Richards Bay Biomass Project
NM0141: Displacing grid/off-grid steam and electricity generation with less carbon intensive fuels in Aba, Nigeria
NM0142: Palm Methyl Ester - Biodiesel Fuel (PME-BDF) production and use for transportation

in Thailand
NM0143:Catalytic reduction of N ₂ O inside the ammonia burner of the nitric acid plant at Fertilizers & Chemicals Ltd., Israel

3. After considering the proposed new methodologies as well as desk reviews and public inputs received, the Meth Panel:

(a) Agreed on the **final recommendations** on proposals NM0111, NM0126, NM0127, NM0129, NM0131, NM0132, NM0137 and NM0139 for the consideration of the Executive Board at its twenty-third meeting. Final recommendations will be made available in the UNFCCC CDM web site:

<http://cdm.unfccc.int/methodologies/PAmethodologies/publicview.html>. In particular the Meth Panel:

- (i) Recommended the **approval of proposal** NM0111. The reformatted version of NM0111 is contained in annex 1 of this report;
- (ii) Recommended the incorporation of the following proposal into an approved methodology (please refer to section D “revision of approved methodologies” below):
 - NM0127 for incorporation into the approved methodology AM0025 “Avoided emissions from organic waste composting at landfill sites - version 2”;
- (iii) Recommended approval of the consolidated baseline and monitoring methodologies for:
 - “Consolidated methodology for industrial fuel switching from coal or oil to natural gas”, as contained in annex 2 of this report, which is based on cases NM0131 and NM0132 and the approved methodology AM0008. In this regard, the Meth Panel recommends to remove AM0008 as it will be contained in the new consolidated methodology;
- (iv) Recommended the **revision of proposal** NM0129;
- (v) Recommended to **not approve** NM0126, NM0137 and NM0139;

(b) Agreed on **preliminary** recommendations on proposals NM0133, NM0134, NM0136, NM0138, NM0140, NM0141, NM0142, NM0143, NM0105-rev, NM0107-rev, NM0112-rev, NM0117-rev and NM0123-rev. In accordance with the procedures for submission and consideration of a proposed new methodology, these recommendations are to be sent back to the project participants to provide them the opportunity for technical clarifications.¹ If project participants **do not provide any clarification** within the ten-day consultation period, these recommendations will also be made available in the UNFCCC CDM web site:

<<http://cdm.unfccc.int/methodologies/PAmethodologies/publicview.html>> as final recommendations. For those cases that have already been re-submitted once (NM0105-rev,

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¹ The technical clarifications from project participants, should be submitted in the current versions of CDM-NMB and CDM-NMM forms (please refer to paragraph 30).

NM0112-rev, NM0107-rev, NM0117-rev and NM0123-rev) and if a required clarification is not provided by the project participants within the ten-day consultation period of proposals, these cases will be recommended for **non-approval to the Board**. This corresponds to guidance provided by the Board at its twenty-first meeting indicating that cases can only be re-submitted to the Board once.

Work in progress

4. The Meth Panel agreed to continue considering **NM0080-rev** to address some upstream leakage issues at its next meeting with a view to prepare a recommendation for possible approval of the case at its twentieth meeting.
5. The Meth Panel further agreed to continue considering **NM0124-rev** with a view to prepare a recommendation for possible approval of the case at its twentieth meeting.
6. The panel recognized that additional expertise is required to analyze leakage due to upstream emissions from fossil fuel use in order to improve the treatment of this emission source in a consistent manner in all relevant methodologies. Based on this work, the Meth Panel also agreed to further improve the proposed consolidation of the cases **NM0131, NM0132 and approved methodology AM0008**: “Consolidated baseline methodology for industrial fuel switching from coal or oil to natural gas” and agreed to work on a revision of the consolidated methodology at its twentieth meeting.
7. The Meth Panel agreed to recommend that case **NM0038-rev** is to be consolidated in approved methodology **AM0013**: “Forced methane extraction from organic waste-water treatment plants for grid-connected electricity supply, version 2”. The Meth Panel will finalize this consolidation at its twentieth meeting with a view to prepare a recommendation for consideration by the Board.
8. The Meth Panel recognized that additional expertise would be necessary to analyze the possible technical and financial issues with respect to use, recycling, treatment of leakage and substitution of SF₆ in transmission/distribution systems, in context of the submission of the proposed new methodology **NM0135**, which aims to reduce SF₆ emissions in high-voltage transmission/distribution systems. The Meth Panel will further consider NM0135 at its twentieth meeting.
9. The Meth Panel would like to highlight that the methodology **NM0082-rev** requires guidance from the Board on how to deal with possible double-counting of emission reductions before finalizing its recommendation.
10. The Meth Panel took note of additional expertise on emissions from reservoirs and agreed to consider the cases NM0121 and NM0130 at its next meeting, taking into account guidance by the EB on the proposal by the Meth Panel on the treatment of emissions from reservoirs, as described in section J below.

11. The table below provides a summary of the methodologies that were considered by the Meth Panel at its nineteenth meeting.

Total proposed new methodologies considered at Meth19	28 cases
Final recommendations for consideration of EB23	8 cases
Preliminary recommendation to be sent back to project participants for technical clarifications	13 cases
Further expertise for consideration of Meth20 and/or guidance by the Board required	7 cases

C. Clarifications and requests for revisions of approved methodologies

12. The Meth Panel considered the following requests for clarifications and request for revisions related to the application of approved baseline and monitoring methodologies.

Requests for clarifications of approved methodologies:

(a) AM0001 ver.3: Time intervals for parallel flow meter readings in AM0001 ver.3 (DNV-CUK);

(b) AM0026: Clarification with regard to consideration of hydropower plants in operating margin dispatch data analysis (DNV-CUK);

(c) ACM0003: Applicability for biomass cultivated from a farm owned by project participants (AENOR);

(d) ACM0001 ver.2: Parameters to be fixed ex-ante for the entire crediting period (DNV-CUK);

(e) ACM0004: Inclusion of the Top Surplus Pressure (TRT) technology (DNV-CUK);

(f) ACM0002 ver.4: Consideration of registered CDM projects in the build and operating margin (DNV-CUK);

(g) AM0014: Proposal to modify applicability conditions of the methodology to allow the cogeneration system to be owned or operated by the consuming facility that receives the project heat and electricity (DNV-CUK);

(h) ACM0006: Proposed amendment to ACM0006 (DNV-CUK);

(i) AM0014: Applicability of AM0014 for projects that supply small amounts of excess electricity to the grid (DNV-CUK);

(j) AM0014: Applicability of AM0014 to combined cycle natural gas power plants (DNV-CUK);

(k) ACM0002 ver.3: Build Margin - Approach to determine recent 20% if 20% falls on part capacity (DNV-CUK).

13. The requests and clarifications provided are made publicly available at the UNFCCC CDM web site at <<http://cdm.unfccc.int/methodologies/Clarifications>>. Clarifications that implied a recommendation by the Meth Panel to revise an approved methodology are reflected in the section D. below.

Request for revisions of approved methodologies:

- (a) AM00025 ver.2: “Simplification of the calculation of the baseline-emission” (SGS-UKL);
- (b) AM0025 ver.2: “Simplification of determination of the project emission factor for on-site electricity consumption” (SGS-UKL);
- (c) AM0006: “Deletion of footnote 6 in ACM0006” (DNV-CUK);
- (d) AM0012: “An alteration of approved methodology AM0012 so that the compliance rate of AM0012 rules in India can be adjusted to exclude the impact of CDM project activities” (SGS-UKL).

14. The requests of revision provided are made publicly available at the UNFCCC CDM web site at <<http://cdm.unfccc.int/methodologies/PAMethodologies/Revisions>>. Request for revisions that implied a recommendation by the Meth Panel to revise an approved methodology are reflected in the section D. below.

D. Revisions of approved methodologies

AM0025: “Avoided emissions from organic waste composting at landfill sites - version 2”

15. In response to two requests for revision mentioned in paragraph 13 (a) and (b) above the Meth Panel agreed to recommend a revision of the approved methodology AM0025, as contained in annex 3 to this report. The Meth Panel highlighted that this revision also includes the consolidation of NM0127 with AM0025, as referred to in paragraph 3 (a) (ii) above.

ACM0003: Emissions reduction through partial substitution of fossil fuels with alternative fuels in cement manufacture

16. In response to the request for clarification, the Meth Panel agreed to recommend the revision ACM0003 in order to provide a proper definition of “alternative fuels” eligible under this methodology, as contained in annex 4. Furthermore, in calculating avoided methane emissions from biomass residues disposed at landfills, the Meth Panel is proposing to replace the IPCC Tier 1 method by a First Order Decay model (FOD), consistent with AM0025 (please refer to section I below).

ACM0001: Consolidated methodology for landfill gas project activities --- Version 2

17. In response to the requests for clarifications of the approved baseline and monitoring methodologies ACM0001 by project participants, the Meth Panel agreed to recommend to revise the approved methodology ACM0001 for consistency purposes for consideration at its next meeting.

ACM0004: Consolidated methodology for waste gas and/or heat for power generation

18. In response to the requests for clarifications of the approved baseline and monitoring methodologies ACM0004 by project participants, the Meth Panel agreed on recommendations for revision as contained in annex 5 to this report.

19. The approved methodology was revised, as requested by the Board, at its twenty-second meeting, to expand application to cases where the waste gas is used for electricity generation along with other fuels. The request for revision to expand applicability to cases where power generation using Top Surplus Pressure technology was also considered and is contained in the same annex 5 above.

ACM0002: Consolidated methodology for grid-connected electricity generation from renewable sources --- Version 4

20. In response to two requests for clarification of the approved baseline and monitoring methodologies ACM0002 by project participants, the Meth Panel agreed to a recommendation for revision, as contained in annex 6 to this report.

21. The first request considered related to the treatment of consideration of 20% of generation capacity to be considered for estimating the build margin emission factor when the 20% falls on part of the last power plant included in the build margin group. The second request considered related to the exclusion of registered CDM projects in estimating the build and the operating margin emission factors.

ACM0006: Consolidated methodology for grid-connected electricity generation from biomass residues

22. In response to two **requests for revision** of the approved baseline and monitoring methodologies ACM0006 by project participants, the Meth Panel agreed to recommend a revision, as contained in annex 7 to this report.

23. In response to a request of **deviation** of the approved methodology, the Meth Panel notes that there was no limitation to back pressure turbines for the relevant scenario in the context of the proposed project activity.

AM0016: Greenhouse gas mitigation from improved animal waste management systems in confined animal feeding operations --- Version 2

24. The Meth Panel agreed to recommend to revise AM0016 in order to include additional parameters related to the monitoring of the flare, as contained in annex 8 to this report.

AM0005: Small grid connected zero emission renewable electricity generation

25. The Meth Panel agreed to recommend removing the approved methodology AM0005 as the methodological approaches in AM0005 are largely covered in the consolidated approved methodology ACM0002 "Consolidated methodology for grid-connected electricity generation from renewable sources --- Version 4".

26. The CDM project activities applicable under AM0005 could also use ACM0002. While ACM0002 is frequently used and has been revised for improvement, these revisions (e.g. definition of the electricity system, guidance of retrofit projects, etc) have not been made in AM0005. Maintaining AM0005 would not provide additional value to project participants, but

instead would require a substantial revision to make it consistent with ACM0002 and may also require continuous update in order to maintain consistency with ACM0002.

E. Forms for recommendations

27. The Meth Panel considered the revision of forms CDM-NMB and CDM-NMM and its guidelines, in order to streamline the submission of proposed new methodologies, taking into account the revisions undertaken by the afforestation and reforestation working group at its last meeting. The Meth Panel agreed that further work, in collaboration with the AR WG, is needed for finalizing the revision of these forms at its next meeting.

28. In addition, the related forms (Meth Panel recommendation form and the desk reviewer forms) would be also revised.

F. Selection of baseline scenario

29. The Meth Panel agreed to recommend an optional tool (referred hereinafter as 'baseline selection tool') in assisting the selection of a baseline scenario from a set of potential baseline alternatives, as contained in annex 9 to this report.

G. Double counting

30. The Meth Panel took note of the current call for public inputs on double counting launched by the Board. The Meth Panel highlighted that certain methodologies (NM0082-rev, NM0129 and NM0142) are currently under consideration by the Meth Panel, and require guidance from the Board on how to treat these cases before a final recommendation is prepared.

31. The Meth Panel noted that it will take into consideration the public inputs and additional expertise in considering approaches to address double counting at its twentieth meeting.

H. Conditions of use of measurement instruments in the monitoring

32. A report providing an overview of the existing standards and resources (such as ISO, IEC, IPCC, EVO, ASHRAE) and their broad relevance for monitoring of CDM project activities was considered including recommendations for information to be incorporated in the CDM-PDD, CDM-NMB and CDM-NMM.

33. The Meth Panel recommends that the specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the PDD, along with detailed QA and QC procedures. The verification of the authenticity of the uncertainty levels and instruments are to be undertaken by the DOE during the verification stage.

34. It is understood that the cost of monitoring will have an impact on the level of accuracy and uncertainty that the project participants will adopt in their project activity. The forms CDM-NMB and CDM-NMM should include a general guideline on the uncertainty assessment with ranges specified, and QA/QC procedures and applicable international standards and protocols to be followed.

35. The Meth Panel agreed to work on the development of separate guidelines on the details to be included in CDM-PDD, CDM-NMB and CDM-NMM with respect to standards and resources for measurement and calibration.

I. Estimation method to calculate methane avoidance

36. The Meth Panel noted that some project proponents are requesting the use of the IPCC tier 1 approach instead of the first order decay model to estimate avoided methane emissions from landfill in the baseline as a result of utilizing other technologies such as bio-methanation and composting. The IPCC tier 1 approach assumes that all potential methane emissions from the waste are emitted in the year it was placed in the landfill.

37. The Meth Panel noted that this assumption may in some cases be appropriate to prepare greenhouse gases inventories, however it is not appropriate to estimate emission reduction from CDM project activities. The first order decay model simulates the anaerobic degradation process of the waste in the landfill over time, where in most cases methane is emitted during and after the crediting period due to the presence of slow degrading waste. Thus, if the IPCC tier 1 method is used, it would result in the crediting of avoided baseline emissions beyond the crediting period of the project.

38. The Meth Panel acknowledged that such project activities may avoid emissions from the landfill beyond the crediting period. However, the uncertainty in the baseline scenario beyond the crediting period and the impossibility of its verification makes it inappropriate to use the IPCC tier 1 method for such cases. Therefore, the Meth Panel recommends the use of the first order decay model in such cases and requests confirmation from the Board that these emission reductions are not to be credited.

J. Treatment of reservoir emissions in large hydro projects

39. The Meth Panel considered the report prepared by an expert. It was concluded that the information was not sufficient to provide precise estimations on GHG emission from hydro-electric reservoirs by either recommending default emission factors or measurement procedures.

40. The Meth Panel continued its discussions on emissions from hydro reservoirs, and the implications this could have for calculating emission reductions from hydropower facilities.

41. In this regard, the Meth Panel agreed to recommend that the following values be used (see annex 9 for additional explanations):

(a) Hydroelectric power plants with power densities (installed power generation capacity divided by the flooded surface area) up to 5 W/m²: cannot use currently approved methodologies (such as ACM0002, AM0026, AM0019 and AM0026);

(b) Hydroelectric power plants with power densities higher than 5 W/m² but lower, or equal to 10 W/m²: can use currently approved methodologies, with an emission factor equal to 100 gCO₂eq/kWh for project emissions from the reservoir;

(c) Hydroelectric power plants with power densities higher than 10 W/m²: can use current approved methodologies, while project emissions from the reservoir may be neglected.

42. Once the Board agreed to the above recommendations in paragraph 41, the Meth Panel agreed that the approved methodologies in paragraph 41 (a) would need to be revised.

K. Consistency among methodologies

43. In order to further improve the consistency between methodologies and to facilitate the development of new baseline and monitoring methodologies, the Meth Panel agreed to develop:

(a) “*Technical guidelines for the development of new baseline and monitoring methodologies*”. These guidelines should combine existing guidance provided by the Board on methodological clarifications, the guidelines for completing the CDM-NMB and CDM-NMM, as well as any additional guidance resulting from ongoing work on consistency issues in one document;

(b) A “*Catalogue of methodological components*”, which project participants could draw upon when developing new baseline and monitoring methodologies, by making cross-references to these methodological components.

44. The Meth Panel will finalize a first version of the technical guidelines as well as an initial catalogue of methodological components at its twentieth meeting for consideration by the Board. The Meth Panel recommended that a one (1) day-fee should be paid for a Meth Panel member for this work.

L. Roster of experts

45. The Meth Panel noted the satisfactory completion of the desk reviews undertaken for proposed new methodologies considered at the meeting as well as the desk reviews considered for submissions submitted at round 13.

M. Schedule of meetings and rounds of submissions of proposed new methodologies

46. The Meth Panel confirmed its twentieth meeting to be held on 4 - 7 April 2006 and the twenty-first meeting to be held on 6 - 9 June 2006, taking into account the schedule of the Board. These meetings may be preceded by a one day informal meeting.

47. The next round of submission of proposed new methodologies are recommended to be on 8 March 2006. The Meth Panel reminded that baseline and monitoring **methodologies can be submitted at any time**. The dates mentioned above reflect only the cut-off date for the submissions to be considered at respective Meth Panel meeting.
