REPORT OF THE FIFTY-FOURTH MEETING OF THE METHODOLOGIES PANEL

Haus Carstanjen, UNFCCC Headquarters, Bonn, Germany 23–27 January 2012

RECOMMENDATIONS BY THE METHODOLOGIES PANEL TO THE CDM EXECUTIVE BOARD

A. Opening of the meeting and adoption of the agenda

- 1. The Chair of the Methodologies Panel (the panel), Mr. Philip Gwage, opened the meeting.
- 2. The panel expressed its deep appreciation to Mr. Philip Gwage and Mr. Lex de Jonge, the outgoing Chair and Vice-Chair of the panel, for their excellent support.
- 3. The agenda was adopted as proposed.

B. Proposed new methodologies

- 4. The panel considered the proposed new methodologies listed in the table below, as well as desk reviews and public inputs received, where applicable.
- 5. The final recommendations, proposed by the panel for consideration by the CDM Executive Board (the Board), are made available on the UNFCCC CDM website at http://cdm.unfccc.int/goto/MPpropmeth>.
- 6. In accordance with the procedures for the submission and consideration of a proposed new methodology, project participants may submit to the secretariat, copying the designated operational entity (DOE), clarifications to preliminary recommendations. If project participants provide the clarifications within four weeks of receiving the preliminary recommendation, then the panel considers the proposed new methodology at its next meeting. If project participants do not provide clarifications related to the preliminary recommendation within a timeframe of three months after the date of the publication of the report of the panel meeting at which the proposed new methodology received its preliminary recommendation, the submission will be considered withdrawn.
- 7. The panel agreed on the following recommendations:

Table 1: Proposed new methodologies

Proposed new methodology	Recommendation ¹	
NM0350: Improving Energy Efficiency in Data Centers through Dynamic Power Management	Work in progress (see paragraph 8(a))	
NM0351: High Speed Passenger Rail Systems	A (see annex 1)	
NM0352: New cogeneration facilities supplying electricity and steam to a Greenfield Industrial Consumer with Excess Power Generated exported to a Grid and/or other Dedicated Consumer(s)	A (see annex 2)	

Recommendations on the proposed new methodologies from the panel A (recommended for approval) and C (recommended for non-approval) are final recommendations to the Board. Preliminary recommendations are technical clarifications requested by the panel from project participants before finalizing its recommendation to the Board.

Proposed new methodology	Recommendation ¹
NM0353: Grid connection of isolated electricity systems in countries with merit order dispatch	Work in progress (see paragraph 8(b))
NM0354: Energy efficiency improvements of a lime production facility through installation of new kilns	Work in progress (see paragraph 8(c))
NM0356: New natural gas based combined heat and power plant	Preliminary recommendation

- 8. The panel requested the Board to <u>take note</u> that it could not conclude its consideration of the following proposed new methodologies:
 - (a) NM0350 "Improving Energy Efficiency in Data Centers through Dynamic Power Management". The panel has considered this case at four meetings, but has not been able to conclude as additional information is required for cases regarding the replacement of an old server with a new higher capacity energy efficient server. The panel aims to provide a final recommendation on the case at its next meeting;
 - (b) NM0353 "Grid connection of isolated electricity systems in countries with merit order dispatch", as further work is needed on the approaches related to the determination of the emission factor for an exporting grid;
 - (c) NM0354 "Energy efficiency improvements of a lime production facility through installation of new kilns", as additional information is required from the project participants to resolve issues concerning: (i) the definition of the useful production capacity; (ii) potential changes in the combustion efficiency during the crediting period; and (iii) the consideration of dust in the calculation of emissions from calcination.

C. Development of new methodologies and tools

9. Top-down development of a methodology for renewable power generation in isolated systems

In response to the request contained in paragraph 82 of the report of the sixty-fifth meeting of the Board, the panel recommended the Board to <u>approve</u> the draft methodology "Renewable energy power generation in isolated grids", which is applicable to power generation plants, using renewable energy sources, connected to new or existing isolated grids and addresses the Board's request. The draft methodology:

- (a) Allows for different structures of the isolated grid; and
- (b) Avoids an overly conservative calculation of the baseline emission factor in the situation where less than 20% of the installed capacity and less than five plants use gaseous fossil fuels in the isolated grid.

The draft methodology is contained in annex 3.

10. Top-down development of the draft methodological tool "Project and leakage emissions from anaerobic digesters"

In response to the task of developing top-down methodologies and tools, as contained in the 2011 workplan of the panel, the panel recommended the Board to <u>approve</u> the draft tool "Project and leakage emissions from anaerobic digesters". The draft tool calculates project and leakage emissions from anaerobic digesters and provides options for using conservative

default values or monitored data. The draft tool was prepared at the fifty-third meeting of the panel. Subsequently, the Board at its sixty-fifth meeting launched a call for public inputs on the draft. The inputs were considered by the panel when finalizing the draft, which is contained in annex 21.

11. Top-down development of the draft methodological tool "Upstream leakage emissions associated with fossil fuel use"

In response to the task of developing top-down methodologies and tools, as contained in the 2011 workplan of the panel, the panel requested the Board to <u>take note</u> that it developed a first draft of the tool. The tool provides the following two options to calculate leakage emissions associated with the use of fossil fuels:

- (a) Use of default emission factors for each fossil fuel type;
- (b) Use of default of calculated emission factors for each upstream emission stage of a fossil fuel type.

The panel also requested the Board to <u>consider</u> launching a call for public inputs on the draft tool, open for a period of 30 days. The public inputs will be taken into account when preparing the final draft of the tool to be recommended to the Board at a future meeting. The draft tool is contained in annex 20.

D. Revisions and amendments of approved methodologies and tools

12. The panel requested the Board to <u>consider</u> the following responses to requests for revision related to the application of approved baseline and monitoring methodologies and methodological tools. The requests submitted and the responses provided by the panel are made publicly available on the UNFCCC CDM website at

http://cdm.unfccc.int/methodologies/PAmethodologies/revisions and

http://cdm.unfccc.int/methodologies/PAmethodologies/tools-revisions.

Table 2: Requests for revision

Number of the request for revision	Approved methodology or tool	Title of the request for revision	MP response
AM_REV_0186	AM0001	Revision to AM0001 to address methodological issues	See paragraph 13
AM_REV_0223	AM0074	Revision of baseline methodology procedure in order to broaden the methodology's scope and applicability	To revise (see paragraph 17)
AM_REV_0224	ACM0014	Mitigation of greenhouse gas emissions from treatment of industrial wastewater	Not to revise

Number of the request for revision	Approved methodology or tool	Title of the request for revision	MP response
AM_REV_0225	AM0090	Extension of the methodology AM0090 for multiple origin points and multiple destination points, apart from the inclusion of transport made by containers, regardless of the type of goods transported, taking into account the tare and the weight of the container	Not to revise
AM_REV_0226	AM0025	AM0025, Avoided emissions from organic waste through alternative waste treatment processes, Version 12.0	Work in progress (see paragraph 14)
AM_REV_0227	ACM0019	Revision of project emissions calculation	To revise (see paragraph 23)
AM_REV_0228	ACM0002	Request for revision in definition of Capacity Addition for renewable energy projects	To revise (see paragraph 19)
AM_REV_0229	AM0036	Fuel Switch from fossil fuels to biomass residues in heat generating equipment	Not to revise
AM_REV_0230	AM0050	Revision of AM0050 to expand its applicability of the situations where it is presently not applicable	Not to revise

- 13. The panel requested the Board to <u>take note</u> that the issues raised in the request for revision AM_REV_0186, concerning the methodology AM0001 "Incineration of HFC 23 Waste Streams", were considered while working on the draft revised methodology prepared in response to a request by the Board. The draft was approved by the Board as AM0001 version 06.0.0, "Decomposition of fluoroform (HFC-23) waste streams", at its sixty-fifth meeting.
- 14. AM0025 "Avoided emissions from organic waste through alternative waste treatment processes"

In response to the task of improving approved methodologies and tools, as contained in the 2011 workplan of the panel, and the request for revision AM_REV_0226, the panel requested the Board to take note that the panel continued to work on the revision of AM0025 to improve the methodology. The panel intends to continue its work at its next meeting.

15. AM0030 "PFC emission reductions from anode effect mitigation at primary aluminium smelting facilities"

In response to the task of improving approved methodologies and tools, as contained in the 2011 workplan of the panel, the panel requested the Board to <u>take note</u> that it prepared a draft revision of the methodology AM0030. The draft revision:

(a) Incorporates a benchmark approach for the baseline emissions calculation;

- (b) Improves the clarity of the language; and
- (c) Ensures internal consistency.

Following paragraph 21(a) of the "Procedure for the submission and consideration of requests for revisions of approved baseline and monitoring methodologies and tools for large scale CDM projects", the Chair of the panel launched a call for public inputs on the draft revised methodology AM0030, starting on 6 February 2012. The call will be open for 10 calendar days. The draft revised methodology is contained in annex 6.

16. AM0064 "Methodology for methane capture and utilisation or destruction in underground, hard rock, precious and base metal mines"

In response to issues identified in the methodology AM0064 during the consideration by the panel of a request by the Small-Scale Working Group, as per paragraph 34 of the report of the forty-ninth meeting of the panel, the panel developed a draft revision of the methodology and recommended the Board to approve it. The draft revision:

- (a) Broadens the applicability of the methodology to the more recently drilled exploration boreholes and to the recovery and utilization of methane from exploration boreholes;
- (b) Includes a condition on the maximum allowed diameter of the exploration boreholes;
- (c) Improves the clarity of the language; and
- (d) Adds reference to methodological tools.

The draft revised methodology is contained in annex 9.

17. AM0074 "Methodology for new grid connected power plants using permeate gas previously flared and/or vented"

In response to the request for revision AM_REV_0223, the panel recommended the Board to approve a revision of the methodology AM0074. The draft revision:

- (a) Introduces a new definition of permeate gas;
- (b) Introduces an applicability condition limiting the amount of permeate gas used under the project activity compared to the historical situation;
- (c) Introduces procedures on demonstration of use of permeate gas prior to the implementation of project activity;
- (d) Includes a barrier analysis for demonstration of additionality under certain conditions; and
- (e) Changes the approaches for the calculation of baseline emissions.

The draft revised methodology is contained in annex 10.

18. AM0078 "Point of Use Abatement Device to Reduce SF₆ emissions in LCD Manufacturing Operations"

The panel, while working on the methodology AM0096 "CF₄ emission reduction from installation of an abatement system in a semiconductor manufacturing facility", noted that several sections of the methodology AM0078 may be improved. Consequently, the panel recommended the Board to approve a revision of the methodology AM0078, which:

(a) Improves and reorganizes the procedure to determine the amount of eligible SF₆ that would be emitted in the baseline;

- (b) Changes the default value of the fraction of SF₆ consumed but not destroyed or transformed in the process, to account for the fraction of gas remaining in the shipping container;
- (c) Includes a cap for the ratio of SF₆ consumption to the surface area of LCD substrate processed, based on the Tier 1 emission factor provided in the 2006 IPCC Guidelines:
- (d) Revises the procedure to calculate project emissions;
- (e) Improves the clarity of the language; and
- (f) Adds reference to methodological tools.

The draft revised methodology is contained in annex 11.

19. ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"

In response to the request for revision AM_REV_0228, the panel recommended the Board to approve an amendment of the methodology ACM0002. The draft amendment incorporates a provision for capacity addition, and replacement in a renewable energy plant where a new power generation equipment replacing the existing power generation equipment may be installed at a different location than that of the existing power generation equipment. The draft amendment is contained in annex 14.

20. ACM0005 "Consolidated Baseline Methodology for Increasing the Blend in Cement Production"

In response to issues identified in the methodology, the panel recommended the Board to <u>approve</u> a revision of the methodology ACM0005, which:

- (a) Revises the first-of-its-kind barrier and investment barrier analysis and aligns them with the latest approved version of the guidelines on the first-of-its-kind barrier and objective assessment and demonstration of barriers;
- (b) Improves and reorganizes the procedure to determine the baseline benchmark for the share of clinker and its update;
- (c) Corrects the calculation of leakage emissions due to transport of additives and improves the procedure to calculate leakage emissions from the diversion of additives;
- (d) Removes the leakage emissions due to electricity consumption for conveyor system for additives;
- (e) Corrects and reorganizes the calculation of emission reductions;
- (f) Improves the clarity of the language; and
- (g) Adds reference to methodological tools.

The draft revised methodology is contained in annex 16.

21. ACM0013 "Consolidated baseline and monitoring methodology for new grid connected fossil fuel fired power plants using a less GHG intensive technology"

In response to the request contained in paragraph 91 of the report of the sixty-fifth meeting of the Board, the panel requested the Board to <u>take note</u> that the panel has continued its work to revise the methodology and agreed on the conceptual approach to:

- (a) Incorporate provisions to address the potential overestimation of baseline emissions as described in the information note prepared in the fifty-third meeting of the panel;
- (b) Improve the baseline identification procedures; and
- (c) Provide more guidance for the investment comparison analysis.

The panel intends to consider a draft revision of the methodology at its next meeting.

22. ACM0014 "Mitigation of greenhouse gas emissions from treatment of industrial wastewater"

In response to the request contained in paragraph 92 of the report of the sixty-fifth meeting of the Board, the panel requested the Board to <u>take note</u> that the panel has initiated its work on the revision of this methodology, with a scope to:

- (a) Incorporate provisions to simplify the calculations of the baseline methane emissions and baseline electricity generation;
- (b) Evaluate the possibility to broaden the applicability of the methodology to other waste water sources;
- (c) Improve the overall structure of the methodology.

The panel intends to consider a draft revision of the methodology at its next meeting.

23. ACM0019 "N₂O abatement from nitric acid production"

In response to the request for revision AM_REV_0227, the panel recommended the Board to <u>approve</u> a revision of the methodology ACM0019. The revision:

- (a) Incorporates a procedure allowing CDM project activities using this methodology not to have negative emission reductions when the abatement system is not installed or is under-performing:
- (b) Removes the requirement to monitor pressure and temperature of the gas when the CDM project activity uses an Automatic Measurement System that provides information in normal conditions.

The draft revised methodology is contained in annex 19.

24. Reference of approved tools in methodologies - Methodological tools "Validity of the original/current baseline and to update the baseline at the renewal of a crediting period", "Tool to determine the remaining lifetime of equipment" and "Project and leakage emissions from road transportation of freight"

In response to the requests contained in paragraphs 82 and 93 of the sixty-third meeting of the Board, the panel recommended the Board to <u>approve</u> the draft revisions to the methodologies listed below, in order to implement these requests. The panel also improved the methodologies by making editorial improvements and ensuring consistency with other methodologies.

- (a) AM0018 "Baseline methodology for steam optimization systems" as contained in annex 5;
- (b) AM0036 "Fuel switch from fossil fuels to biomass residues in heat generation equipment" as contained in annex 7. In addition to making reference to the tools, the revision also adopts the approach from ACM0006 and ACM0018 with regard to the calculation of leakage emissions;

- (c) ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues" as contained in annex 17;
- (d) ACM0018 "Consolidated methodology for electricity generation from biomass residues in power-only plants" as contained in annex 18.
- 25. In response to minor editorial issues identified in approved methodologies and tools, the panel recommended the Board to <u>approve</u> editorial amendments of the methodologies and tools listed below:
 - (a) AM0009 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented" as contained in annex 4;
 - (b) AM0057 "Avoided emissions from biomass wastes through use as feed stock in pulp and paper, cardboard, fibreboard or bio-oil production" as contained in annex 8;
 - (c) AM0083 "Avoidance of landfill gas emissions by in-situ aeration of landfills" as contained in annex 12;
 - (d) AM0093 "Avoidance of landfill gas emissions by passive aeration of landfills" as contained in annex 13;
 - (e) ACM0003 "Emissions reduction through partial substitution of fossil fuels with alternative fuels or less carbon intensive fuels in cement or quicklime manufacture" as contained in annex 15;
 - (f) Methodological tool "Emissions from solid waste disposal sites" as contained in annex 22;
 - (g) Methodological tool "Validity of the original/current baseline and to update the baseline at the renewal of the crediting period" as contained in annex 23.

E. Clarifications to approved methodologies and tools

- 26. The panel requested the Board to take note of the following responses to requests for clarification related to the application of approved baseline and monitoring methodologies and methodological tools. The requests submitted and the responses provided by the panel are made publicly available on the UNFCCC CDM website at
- http://cdm.unfccc.int/methodologies/PAmethodologies/clarifications and
- http://cdm.unfccc.int/methodologies/PAmethodologies/tools-clarifications. If requests for clarification resulted in a recommendation by the panel to revise an approved methodology or approved tool they are reflected in section D.

Table 3: Requests for clarification

Number of the request for clarification	Approved methodology or tool	Title of the request for clarification	MP response
AM_CLA_0191	AM0001	Use of historical data if the key components of a HCFC-22 plants have been retrofitted or replaced	Work in progress (see paragraph 27)
AM_CLA_0221	ACM0006	Query regarding baseline scenario determination and additionality demonstration of the methodology ACM0006	Clarified

Number of the request for clarification	Approved methodology or tool	Title of the request for clarification	MP response
AM_CLA_0222	ACM0014	Inquiry regarding the applicability of ACM0014 to a baseline scenario for combination of existing baseline scenario with existing lagoon system and Greenfield baseline scenario with designed lagoons system	Clarified
AM_CLA_0223	ACM0002	Clarification regarding the demonstration of Additionality in case of transfer of assets	Clarified
AM_CLA_0224	AM0029	Definition of "New" as per Condition 1 of the applicability	Clarified

27. The panel requested the Board to <u>take note</u> that it could not conclude its consideration of the request for clarification AM_CLA_0191. The panel intends to continue its consideration of the request at its next meeting.

F. Deviations from approved methodologies and tools

28. M-DEV_0445: Deviation from methodology AM0009 version 4 in order to cross check the volume of recovered gas processed by the project activity due to its interchangeability with an existing recovery facility

In response to the request for deviation M-DEV_0445, the panel requested the Board to <u>take</u> <u>note</u> that it recommended that the request for deviation M-DEV0445 may be accepted if the project participants demonstrate and the DOE validates:

- (a) That, in the absence of the CDM, the diverted associated gas would have been flared/vented and not recovered for the purpose of displacing fossil fuels, by either exporting the processed associated gas to a natural gas pipeline or by providing hydrocarbon products to consumers;
- (b) That the economic impact of the diversion of the associated gas, e.g. revenues from the use of the associated gas which is diverted from the existing non-CDM processing plant to the project activity, is considered in the demonstration of additionality; and
- (c) That the monitoring plan includes the continuous monitoring of the CO₂ content and volume of the recovered associated gas in both the existing non-CDM processing plant and the project activity plant.

G. Other issues

- 29. Workplan to review methodologies for programme of activities (PoA) requirements In response to the requests contained in paragraphs 71 and 74 of the report of the sixty-third meeting and paragraph 37 of the sixty-fifth meeting of the Board, the panel requested the Board to:
 - (a) <u>Consider</u> an information note on an analysis of 20 methodologies conducted by the panel to assess whether additional requirements are needed within these

- methodologies in the context of their use under a PoA. The information note is contained in annex 24; and
- (b) <u>Take note</u> that the panel intends to consider the issue of cross effects in the context of application of combinations of technologies/measures and methodologies in a PoA at its next meeting.
- 30. Guidelines and work programme on suppressed demand

In response to paragraph 118 of the report of the sixty-third meeting of the Board, the panel requested the Board to <u>take note</u> that the panel considered the public inputs on the guidelines and provided feedback to the secretariat on ways of improving the guidelines, taking into account the public inputs. The secretariat has taken note of the feedback which will be considered when improving the guidelines for consideration by the Board.

31. The panel expressed its gratitude to the secretariat for providing a briefing on the Catalogue of Decisions. Further information on the catalogue can be found at http://cdm.unfccc.int/Reference/catalogue/search>.

H. Schedule of meetings and rounds of submissions

- 32. The panel noted the tentative dates of 26–30 March 2012 for its fifty-fifth meeting.
- 33. Following the guidance contained in paragraph 5 of the "Procedure for the submission and consideration of a proposed new baseline and monitoring methodology for large scale CDM project activities", the panel considers proposed new methodologies submitted by a deadline at a subsequent meeting conditional to priorities set by the Board and by the Chair of the panel.
- 34. Project participants may note that the deadline for the 45th round of submissions of proposed new methodologies to be considered at the fifty-fifth meeting was 16 January 2012, 24:00 GMT. The deadline for the 46th round of submissions of proposed new methodologies to be considered at the fifty-sixth meeting is 2 April 2012, 24:00 GMT.
- 35. The panel also informed project participants that the deadlines for the submission of requests for revision and clarification to be considered at the fifty-fifth meeting are 16 January 2012, 24:00 GMT and 13 February 2012, 24:00 GMT, respectively. The deadline for the submission of requests for revision to be considered at the fifty-sixth meeting is 2 April 2012, 24:00 GMT.

I. Desk Reviews

36. The panel noted the satisfactory completion of the desk reviews undertaken for the proposed new methodologies.

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Annexes to the external report of the fifty-fourth meeting of the Methodologies Panel

- Annex 1 Draft reformatted baseline and monitoring methodology based on NM0351;
- Annex 2 Draft reformatted baseline and monitoring methodology based on NM0352;
- Annex 3 Draft methodology "Renewable energy power generation in isolated grids";
- Annex 4 Draft editorial amendment of AM0009 "Recovery and utilization of gas from oil wells that would otherwise be flared or vented";
- Annex 5 Draft revision of AM0018 "Baseline methodology for steam optimization systems";
- Annex 6 Draft revision of AM0030 "PFC emission reductions from anode effect mitigation at primary aluminium smelting facilities";
- Annex 7 Draft revision of AM0036 "Fuel switch from fossil fuels to biomass residues in heat generation equipment";
- Annex 8 Draft editorial amendment of AM0057 "Avoided emissions from biomass wastes through use as feed stock in pulp and paper, cardboard, fibreboard or bio-oil production"
- Annex 9 Draft revision of AM0064 "Methodology for methane capture and utilisation or destruction in underground, hard rock, precious and base metal mines";
- Annex 10 Draft revision of AM0074 "Methodology for new grid connected power plants using permeate gas previously flared and/or vented";
- Annex 11 Draft revision of AM0078 "Point of Use Abatement Device to Reduce SF₆ emissions in LCD Manufacturing Operations";
- Annex 12 Draft editorial amendment of AM0083 "Avoidance of landfill gas emissions by in-situ aeration of landfills"
- Annex 13 Draft editorial amendment of AM0093 "Avoidance of landfill gas emissions by passive aeration of landfills"
- Annex 14 Draft amendment of ACM0002 "Consolidated baseline methodology for gridconnected electricity generation from renewable sources"
- Annex 15 Draft editorial amendment of ACM0003 "Emissions reduction through partial substitution of fossil fuels with alternative fuels or less carbon intensive fuels in cement or quicklime manufacture"
- Annex 16 Draft revision of ACM0005 "Consolidated Baseline Methodology for Increasing the Blend in Cement Production":
- Annex 17 Draft revision of ACM0006 "Consolidated methodology for electricity and heat generation from biomass residues";
- Annex 18 Draft revision of ACM0018 "Consolidated methodology for electricity generation from biomass residues in power-only plants";
- Annex 19 Draft revision of ACM0019 "N₂O abatement from nitric acid production";
- Annex 20 Draft methodological tool "Upstream leakage emissions associated with fossil fuel use":
- Annex 21 Draft methodological tool "Project and leakage emissions from anaerobic digesters";

- Annex 22 Draft editorial amendment of the methodological tool "Emissions from solid waste disposal sites";
- Annex 23 Draft editorial amendment of the methodological tool "Validity of the original/current baseline and to update the baseline at the renewal of the crediting period";
- Annex 24 Information note "Review of large scale methodologies for their application to PoAs"