Agenda item 4.1(b)
Paragraph 12(a)(i) of addendum to the annotated agenda

NM0344:
Introduction of a New Natural Gas Based Gas Turbine Cogeneration in Existing CHP Facilities Connected to the Electricity Grid

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

NM0344: Introduction of a New Natural Gas Based Gas Turbine Cogeneration in Existing CHP Facilities Connected to the Electricity Grid

Applicability

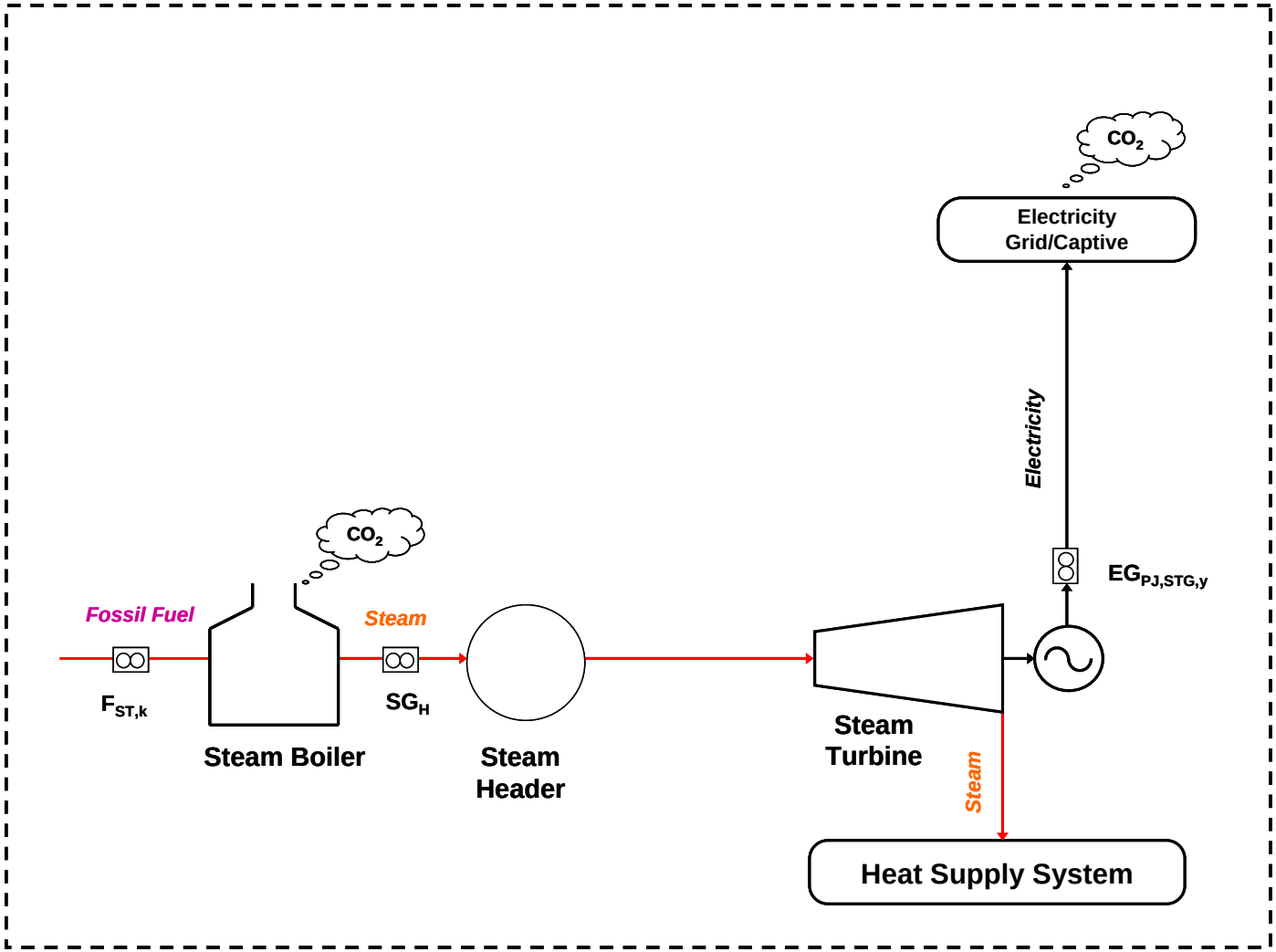
Applicable to project activities that install a new natural-gas fired gas turbine at a site where there is an existing combined heat and power (CHP) plant and supply the electricity to the grid or an existing electricity consuming facility and waste heat to the existing CHP plant.

- The existing CHP plant produced electricity and steam for at least three years prior to the start of the project activity;
- Natural gas is used as main fuel in the gas turbine. Start-up or auxiliary fuels (other than NG) comprise not more than 3%;
- Natural gas is sufficiently available in the region or country;
- Emission reduction due to the steam generated by heat recovery steam generator is applicable up to the end of the lifetime of the existing boiler(s);

New title: Installation of a new natural gas fired gas turbine to an existing CHP plant

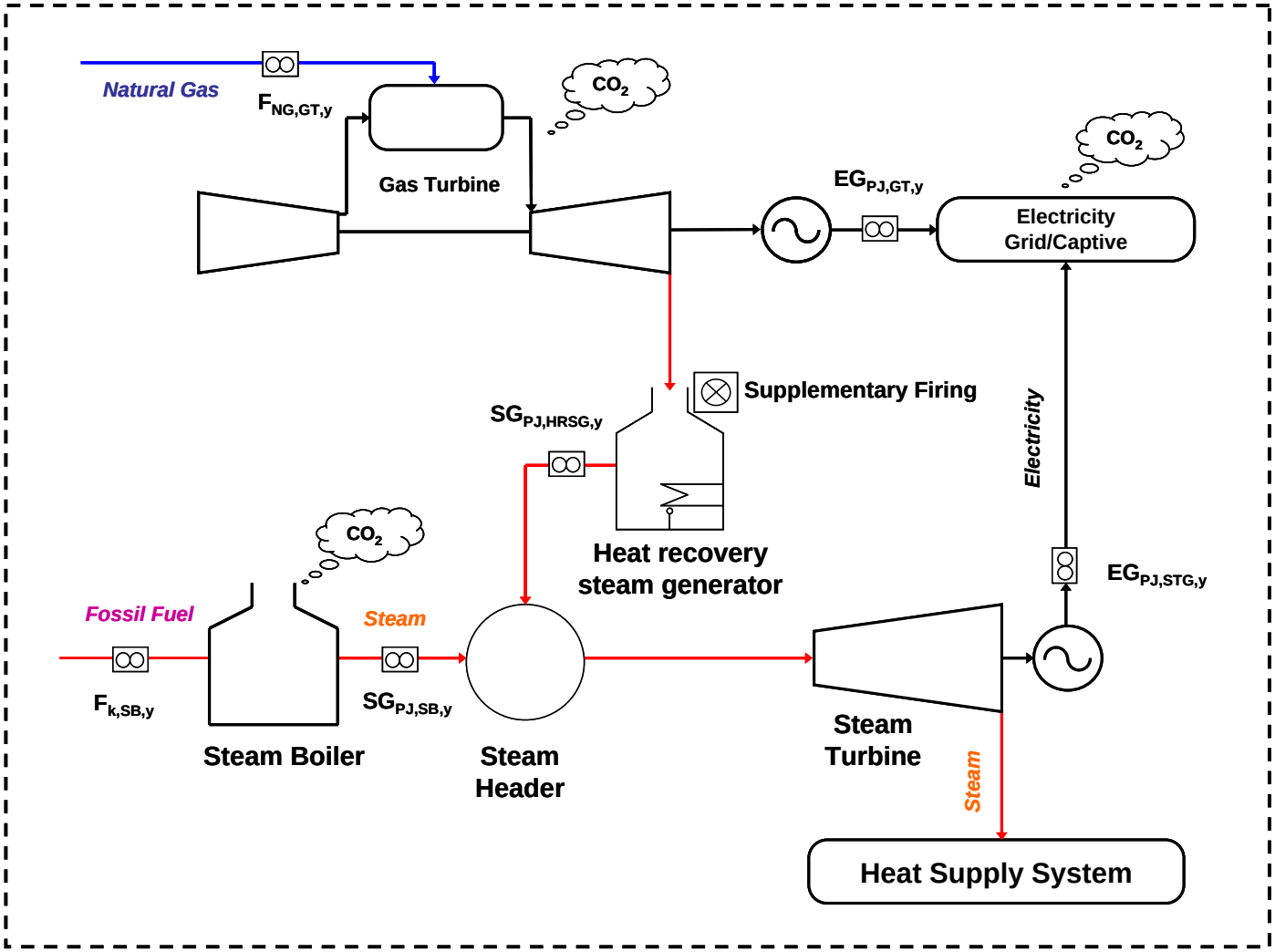
NM0344: Introduction of a New Natural Gas Based Gas Turbine Cogeneration in Existing CHP Facilities Connected to the Electricity Grid

BASELINE



NM0344: Introduction of a New Natural Gas Based Gas Turbine Cogeneration in Existing CHP Facilities Connected to the Electricity Grid

PROJECT



Agenda item 4.1(b)
Paragraph 12(a)(ii) of addendum to the annotated agenda

NM0345: Methodology for conversion of a Combined Cycle Power Plant to an Integrated Solar Combined Cycle (ISCC)

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

NM0345: Methodology for conversion of a Combined Cycle Power Plant to an Integrated Solar Combined Cycle (ISCC)

Applicability

Applicable to project activities that implements Integrated Solar Combined Cycle (ISCC) project.

ISCC: A solar field connected to a combined cycle power plant. Steam generated from the solar steam generator is supplied to steam turbine of the combined cycle power plant.

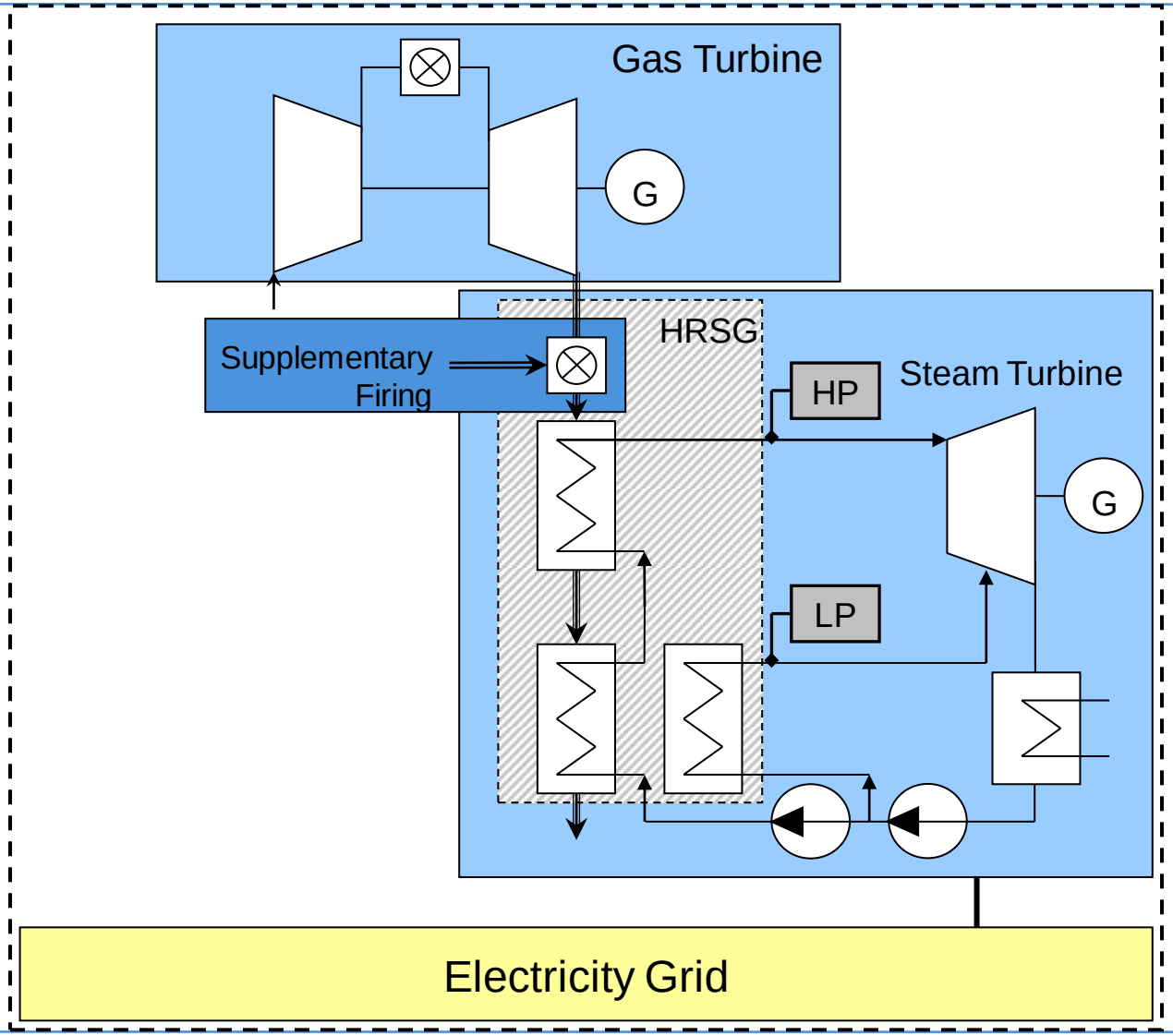
➢The Electric Solar Capacity does not account for more than 15% of the Electric Steam Turbine Capacity of the ISCC. This condition is necessary in order to avoid considerable negative effects on the Rankine Cycle efficiency during times of no or low solar irradiation;

➢A water steam chart or appropriate software according to international standard (for example IAPWS-IF 97) is used to calculate the properties of water and steam (e.g. enthalpies, entropies) from the measured pressure and temperature.

New title: Integrated Solar Combined Cycle (ISCC) projects

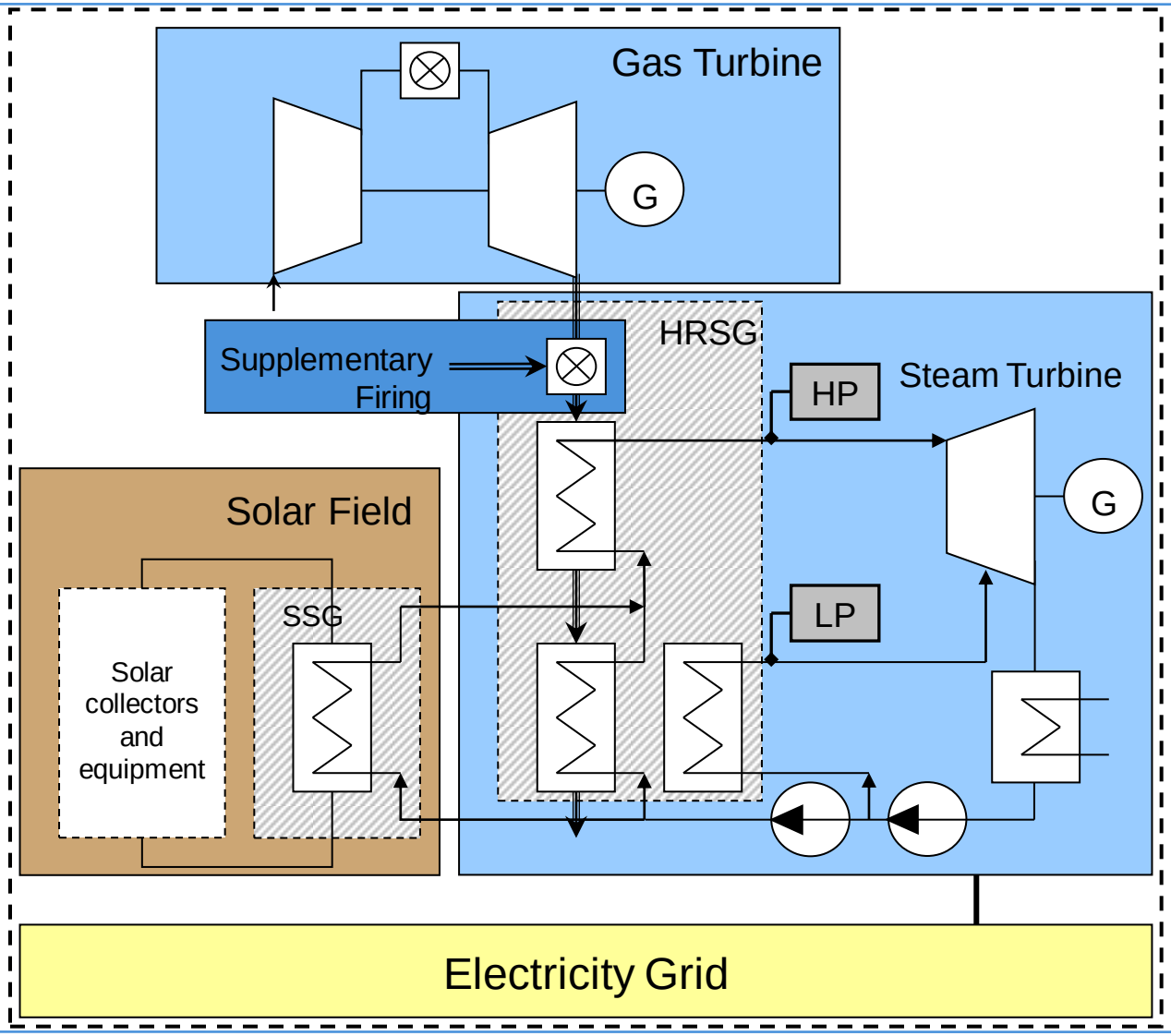
NM0345: Methodology for conversion of a Combined Cycle Power Plant to an Integrated Solar Combined Cycle (ISCC)

BASELINE



NM0345: Methodology for conversion of a Combined Cycle Power Plant to an Integrated Solar Combined Cycle (ISCC)

PROJECT



Agenda item 4.1
Paragraph 12.b of the Addendum to the annotated agenda, Annex 8 (MP53 Report)

"Renewable energy power generation in isolated grids"

CDM EB 65

Durban, 21 – 25 November 2011

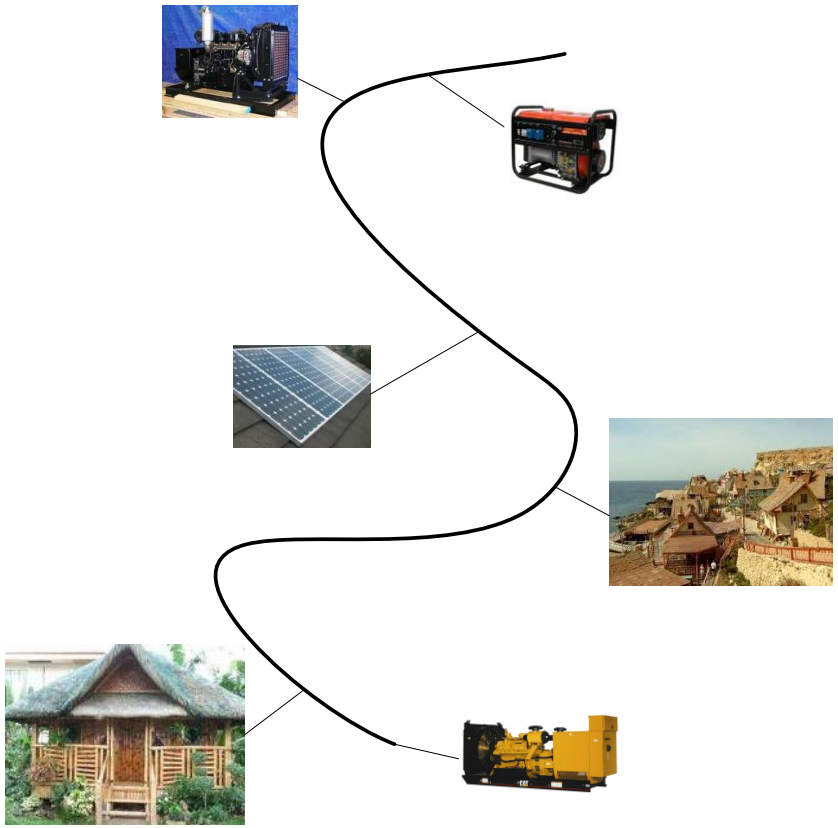
“Renewable power generation in isolated grids”

Mandate

Decision 3/CMP.6

Requested the Board to develop standardized baselines, as appropriate, in consultation with relevant DNAs, prioritizing methodologies that are applicable to LDCs, SIDS, Parties with 10 or fewer registered CDM project activities as of 31 December 2010 and underrepresented project activity types or regions, inter alia, **for energy generation in isolated systems**, transport and agriculture.

“Renewable power generation in isolated grids”



Definition of isolated grid:

Independent and with no interaction with any other grid. At least 80% of the installed power capacity consists of power plants that use only liquid fossil fuels.

Applicability

This methodology applies to power generation using renewable energy sources connected to new or existing isolated grids.

“Renewable power generation in isolated grids”

Additionality

- Use “Combined tool to identify the baseline scenario and demonstrate additionality”

Baseline emissions

- Calculated using default emission factors.

Project emissions. Follow the same approach as ACM0002

- Fossil fuel combustion from geothermal and thermal solar;
- Non-condensate gas emissions from geothermal;
- Methane emissions from reservoirs in hydros.

"Renewable power generation in isolated grids"

Composition of the isolated grid	t CO_2/MWh
No power generation capacity exists	**$EF_{isolated\_grid}$=0.8**
Only use of liquid fossil fuels	• If the grid has no combined cycle power plants using liquid fossil fuels: **$EF_{isolated\_grid}$=0.8**; • **If the grid has at least one combined cycle power plant using liquid fossil fuels: $EF_{isolated\_grid}$=0.45**
Mix of fuels	The emissions factor is based on the fossil fuel type used in the isolated grid with the lowest CO_2 emission factor, as follows: If no gaseous fossil fuel is used but only liquid and solid fossil fuels: • If the grid has no combined cycle power plant using liquid fossil fuels: **$EF_{isolated\_grid}$=0.8**; • **If the grid has at least one combined cycle power plant using liquid fossil fuels: $EF_{isolated\_grid}$=0.45.** If a gaseous fossil fuel is used: • If the grid has no combined cycle power plants using a gaseous fuel: **$EF_{isolated\_grid}$= 0.5**; • **If the grid has at least one combined cycle power plant using a gaseous fuel: $EF_{isolated\_grid}$=0.32**

Agenda item 4.1
Paragraph 12 (c) (i) of the Addendum to the annotated agenda, Annex 10 (MP53)

New methodological tool to estimate "Project and leakage emissions from composting"

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

“Project and leakage emissions from composting”

Objectives:

• Simplify emission calculations by providing **two options** to calculate emissions for several emission sources: Default values and using monitored parameters;

• Improve consistency among methodologies.

Public comments:

Two responses to the call for public input launched at EB62. All aspects raised in comments received were considered.

“Project and leakage emissions from composting”

Scope & applicability

- Composting of solid wastes and wastewater;
- All technology types and project scales; and
- Estimation of project & leakage emissions (not baseline emissions).

Agenda item 4.1
Paragraph 13 of the Addendum to the annotated agenda, Annex 11 (MP53)

NM0355: N2O abatement from adipic acid production

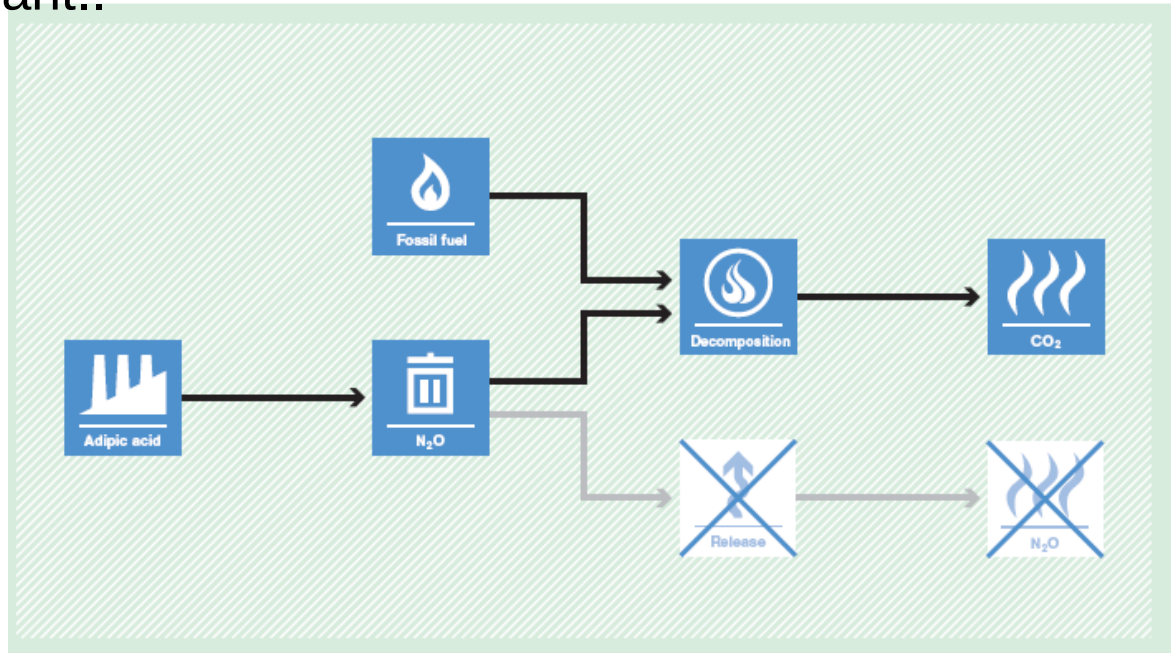
CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Description of the methodology

Baseline: Installation of a primary N2O decomposition technology with no economic incentive to improve the technology to reach the maximum possible abatement efficiency in a **new** or existing adipic acid plant.

Project activity: Improve technology to destroy the maximum amount of N2O generated during the production of adipic acid in a **new** or existing plant..



Proposed baseline emission factor for N2O adipic acid plants

Until 12 months after commissioning of the destruction facility:	144 kg N_2O / t AA
13th to 24th month after commissioning of the destruction facility:	75 kg N_2O / t AA
More than 24 months after commissioning of the destruction facility:	29.3 kg N_2O / t AA

AM0021 for existing plants: 270 kg N_2O / t AA

2008 Meth Panel recommendation for new plants to address EB46 guidance: 50 kg N_2O / t AA

AA = adipic acid

Previous Board decision

Board 48th meeting, paragraph 27

The Board further decided to put on hold the acceptance of new requests for revision to AM0021 for **new** adipic acid production facilities and new methodology submissions for new adipic acid production facilities, until further guidance is provided by CMP.

Request from the Meth panel

The panel is seeking guidance whether it should:

a) Not consider the proposed new methodology until the CMP has provided further guidance;

b) Limit the consideration of the proposed new methodology to facilities that started commercial operation by 31 December 2004 => revision of AM0021 changing approach for BE calculation;

c) Limit the consideration of the proposed new methodology to existing facilities, providing a new definition for existing facilities which also includes facilities that started commercial operation after 31 December 2004 (e.g. facilities that have a three year operational history) => revision of AM0021 changing approach for BE calculation, broadening applicability); or

d) Consider the proposed new methodology, including its applicability to new facilities.

Agenda item 4.1
Paragraph 14 of the Addendum to the annotated agenda, Annex 9 (MP53)

New tool: “Project and leakage emissions from anaerobic digesters”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Draft tool “Project and leakage emissions from anaerobic digesters”

Objectives

- Simplify emission calculations by providing options to use simple **default values** or monitored data;
- Improve consistency among methodologies.

Scope & applicability

- Emissions from digesters and covered anaerobic lagoons;
- Digestion of solid wastes and wastewater;
- Project & leakage emissions (not baseline emissions).

Request to launch call for public inputs

Paragraph 16 (a) of the Addendum to the annotated agenda, Annex 1 and 12 (MP53 Report)

Revision to AM0001 “Incineration of HFC 23 Waste Streams”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Request by EB63 to the Meth Panel (1)

EB63 requested the panel to

- Analyze a “hybrid approach”; and
- Prepare a draft revised methodology.

What is the “hybrid approach”?

PPs can voluntarily choose between **two options**:

- Use a cap on the HFC-23 waste generation rate (w-factor) of **1.0%**
- Use a w-factor of **1.2%** and **voluntarily abate HFC-23 from non-eligible production lines**

Request by EB63 to the Meth Panel (2)

EB63 requested the panel to assess the following issues:

- Securing environmental benefits, while providing sufficient incentives for the PPs;
- How to deal with circumstances where not all HFC-23 emissions of non-CDM production lines are destroyed?
- Whether and under which circumstances could shifting between the two options be permitted during the crediting period?
- Whether and how to treat the HFC-23 emissions from non-eligible production lines in respect of monitoring, reporting and verification of the DOE?

Economic incentives for the PPs

Analysis of 16 different scenarios calculated for different plant configurations and different market conditions.

Key results:

• The hybrid approach provides generally sufficient economic incentives where **existing** HFC-23 decomposition facilities can be used;

• Where **new** HFC-23 decomposition facilities must be constructed, the hybrid approach is generally economically attractive where the **existing** HCFC-22 lines are **large;**

• The hybrid approach is **not economically attractive** where new HFC-23 decomposition facilities must be constructed and the **existing HCFC-22 production lines are small.**

Environmental benefits

The draft methodology includes **safeguards** to secure environmental benefits, inter alia:

- At least one non-CDM line should exist in 2011
- The increase in CERs must not exceed the voluntary HFC abatement
- Any remaining HFC-23 emissions from non-CDM lines are accounted as leakage emissions to avoid incentives for shifting production between different lines

Environmental benefits

- Could be considerable but sufficient data not available
- **Theoretical** maximum net benefit: up to about 95 MtCO2e / year
- **Theoretical** maximum additional CER issuance: 4.4 Million CERs

Shifting during the crediting period

No environmental issue was identified with opting in or out of the voluntary HFC-23 abatement from other production lines

Flexibility for the PPs:

- PPs can **at any time** and **ex-post** shift between the options;
- Minimum duration for one option: 1 day;
- This provides flexibility in case of malfunction of maintenance of the HFC-23 decomposition facility or other reasons which result in HFC-23 emissions;
- Length of verification periods not affected.

Monitoring

- If PPs voluntary opt for abating HFC-23 emissions from non-CDM lines, monitoring of key parameters (HFC-23 generation and HFC-23 decomposition) is required to secure environmental benefits;

- Additional monitoring costs were assessed and are moderate compared to additional CER revenues.

Summary

- The hybrid approach is technically feasible and can provide environmental benefits;
- Necessary safeguards and monitoring requirements were included in the draft revised methodology;
- The PPs have in most but not all configurations sufficient economic incentives to opt for voluntary HFC-23 abatement from non-CDM lines;
- The PPs should have the possibility to opt in / opt out on an ex-post basis to ensure the approach is a no-lose option for the PPs and temporary emissions from non-CDM lines do not have negative consequences.

Agenda item 4.1(b)
Paragraph 16(b) of addendum to the annotated agenda

Revision of AM0009: Recovery and utilization of gas from oil wells that would otherwise be flared or vented

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

AM0009

The methodology is applicable to project activities that recover and utilise associated gas and/or gas-lift gas from oil wells, which was flared or vented prior to the implementation of the project activity.

Under the project activity the recovered gas is:

- **Consumed on-site to meet energy demands; and/or**
- **Transported to and compressed into a gas pipeline without prior processing; and/or**
- **Transported to a processing plant where it is processed into hydrocarbon products (e.g. dry gas, LPG and condensate) that are transported and sold to final consumer(s).**

DRAFT REVISION:

- **Expands the applicability of the methodology to situations where:**
  - **The associated gas and/or gas-lift gas is partially recovered and utilized on-site before the implementation of the project activity;**
  - **Pre-treatment is done by movable or stationary equipments;**
  - **Recovered gas is first compressed to CNG, then transported via trailers or carriers, and later decompressed and gasified before it finally enters the gas pipelines to end-users;**

DRAFT REVISION:

- **Provides definition of CNG and gas pipeline;**
- **Includes leakage emissions due to the use of fossil fuels and/or electricity due to the compression, transportation and decompression of CNG;**
- **Updates the schematic illustration of baseline and project activity to reflect above changes; and**
- **Updates the monitoring tables by revising (i) the CO_2 emission factor for methane, and (ii) the measurement procedures and QA/QC procedures for net calorific value of recovered gas.**

Revision of AM0009

PREVIOUS REVISIONS: Initial adoption in March 2004, four editorial revisions, three revisions

USAGE: 10 registered projects, 1 request for registration

IMPACT OF THE REVISION: Expanded applicability and improvement

Agenda item 4.1
Paragraph 16 (c) of the Addendum to the annotated agenda, Annex 2 (MP53 Report)

Revision to AM0025 “Avoided emissions from organic waste through alternative waste treatment processes”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Revision: AM0025 "Avoided emissions from organic waste through alternative waste treatment processes"

Background:

- In consulting with stakeholders during preparation of the new methodological tool for the estimation of "Project and leakage emissions from composting", project participants expressed their wish that the estimation of project emissions from composting in AM0025 should be revised as soon as possible.

Revision:

- The revision includes a reference to the new tool **"Project and leakage emissions from composting".**

Agenda item 4.1
Paragraph 16 (d) of the Addendum to the annotated agenda, Annex 3 (MP53 Report)

Revision to AM0031 “Baseline methodology for bus rapid transit projects“

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

AM0031: Top down revision

Introduces:

- Innovative approach to additionality demonstration;
- Crediting period limited to 10 years;
- References to standards and tools.

Reduces:

- Monitoring requirements.

Removes:

- 2 applicability conditions;
- Sensitivity analysis;
- Policy effects;
- Baseline emissions using sectoral data (Path B);
- Account for CH4 and N2O emissions for liquid fuels.

Improves:

- Measurement of specific fuel consumption;
- Language, readability, clarity & consistency.

Innovative approach to additionality demonstration

- LDCs are exempted from additionality assessment;
- CDM projects are excluded from assessment of common practice.

Step 1. Assessment of common practice at **country level**

- Less than 3 cities with MRTS

Step 2. Assessment of common practice at **city level**

- Share of trips realized on existing BRT is equal or less than 20%;
- Metro, sub-urban rail, light transit rail, conventional buses & BRTs.

Step 3. Assessment at **project level**

- **Procedure A:** If at least 50% of total capital investment of the project BRT system provided by commercial entity(ies): Additionality tool. Option III. Benchmark analysis ;
- **Procedure B:** In all other cases, a CDM registration impact analysis: CERs/year equal to or exceed 10% of total annual O&M costs.

Agenda item 4.1
Paragraph 16 (e) of the Addendum of the annotated agenda, Annex 5 (MP53 Report)

Revision to ACM0001 “Consolidated baseline and monitoring methodology for landfill gas project activities”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

ACM0001 “Consolidated baseline and monitoring methodology for landfill gas project activities”

Background:

This revision has been prepared in response to the request for revision AM_REV_0221 and the task of improving approved methodologies and tools as contained in the 2011 workplan of the Meth Panel.

Call for public inputs

Meth Panel 52

Six submissions were received an taken into account when finalizing the draft revision.

Revision: ACM0001 “Consolidated baseline and monitoring methodology for landfill gas project activities”

ELEMENTS OF THE REVISION

- Broaden the applicability by allowing:
  a) use of landfill gas in brick kilns;
  b) claim of CERs associated with landfill gas fed into a natural gas network; and
  c) changing the use but not the amount of LFG between the baseline and the project activity;
- Clarify that the methodology is applicable to new and existing SWDS;
- Incorporate the effect of methane oxidation in the top layer of the solid waste disposal site in the baseline scenario; and
- Refer to relevant tools and other editorial and structural improvements.

Agenda item 4.1
Paragraph 16 (f) of the Addendum to the annotated agenda, Annex 4 (MP53 Report)

Revision to AM0053 “Biogenic methane injection to a natural gas distribution grid”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Revision: AM0053 “Biogenic methane injection to a natural gas distribution grid”

Background:

- Revision to ACM0001 “Flaring and use of landfill gas” provides procedures to claim credits for displacing natural gas with landfill gas in a natural gas distribution network. This overlaps with the applicability of AM0053, hence ACM0001 and AM0053 no longer need to be applied together for this type of project.

Revision:

- Removes the statement that the methodology can be applied in combination with the methodology ACM0001;
- Refers project participants to ACM0001 if the source of biogas in the project activity is landfill gas.

Agenda item 4.1
Paragraph 16 (g) of the Addendum to the annotated agenda, Annex 6 (MP53 Report)

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

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

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

Background:

The draft amendment is prepared in response to issues identified by the Meth Panel concerning the application of ACM0002 in hydro power plants with **multiple reservoirs**.

Amendment:

- Clarifies the applicability of the methodology to hydro power projects using single or multiple reservoirs; and

- Provides conditions under which the methodology is applicable to the project activities using multiple reservoirs where some of them has a level of power density below the threshold of 4W/m^2.

Agenda item 4.1(b)
Paragraph 16(h) of addendum to the annotated agenda

Revision of ACM0005: Consolidated Baseline Methodology for increasing the Blend in Cement Production

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

ACM0005

The methodology is applicable to projects that increase the share of additives (i.e. reduce the share of clinker) in the production of cement types beyond current practices in the country.

The project activity accounts only for GHG emission reductions associated with the increased level of blending – other measures such as energy efficiency improvements should be considered as a separate project activity.

Revision of ACM0005

DRAFT REVISION:

- **Provides an approach to determine the data to calculate baseline emissions in case of Greenfield cement plants;**
- **Clarifies that methodology is not applicable to situations where cement blending is common at the construction site;**
- **Provides an approach to determine the blending benchmark taking into account the imported cement; and**
- **Improves the methodology so as to increase its readability, consistency and simplicity; and**
- **Provides guidance on FOIK based on the "Guidelines on additionality of first-of-its-kind project activities (EB63)"**

Revision of ACM0005

PREVIOUS REVISIONS: **Initial adoption in September 2005, four revisions**

USAGE: **14 registered projects, 9 rejected, 1 withdrawn**

IMPACT OF THE REVISION: **Considerable improvement, simplification**

Agenda item 4.1
Paragraph 16 (i) of the Addendum of the annotated agenda, Annex 7 (MP53 Report)

Revision to ACM0016 "Baseline Methodology for Mass Rapid Transit Projects"

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

ACM0016: Top down revision

Introduces:

- Innovative approach for additionality demonstration;
- Crediting period limited to 10 years;
- Leakage due to upstream emissions; and
- References to standards and tools;

Reduces:

- Monitoring requirements;

Removes:

- 3 applicability conditions; and
- Sensitivity analysis;

Improves:

- Language, readability, clarity & consistency

Innovative approach to additionality demonstration

- LDCs exempted from additionality demonstration;

- CDM projects excluded from common practice assessment;

Step 1. Assessment of common practice at **country level**

Less than 3 cities with MRTS.

Step 2. Assessment of common practice at **city level**

- Share of trips realized on existing MRTS is equal or less than 20%
- Metro, sub-urban rail, light transit rail, conventional buses & BRTs

Step 3. Assessment at **project level**

- **Procedure A:** If at least 50% of total capital investment of the project MRT system provided by commercial entity(ies): Additionality tool. Option III. Benchmark analysis
- **Procedure B:** In all other cases, a CDM registration impact analysis: CERs/year equal to or exceed 10% of total annual O&M costs

Agenda item 4.1
Paragraph 16 (j) of the Addendum to the annotated agenda, Annex 7 (MP53 report)

Revision to the “Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site ”

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

"Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site "

Background:

- This revision has been prepared in response to the task of improving approved methodologies and tools as contained in the 2011 work plan of the Meth Panel;

- The tool estimates baseline emissions of methane from a solid waste disposal site (landfill). The procedure offered in the tool is based on a first order decay model, consistent with the approach used by the IPCC.

Call for public inputs: Meth Panel 51 – Five submissions were received and taken into account when finalizing the draft revision.

"Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site "

ELEMENTS OF THE REVISION

- Updates the procedures for the estimation of several parameters;
  a) New option to measure methane potential of wastes, limit existing default value to municipal solid waste;
  b) Oxidation rate of 10% for all situations;
  c) Model correction factor: default or project specific.

- Improves the usability of the tool by providing a monthly estimation model, a definitions section and clarity on monitoring requirements; and

- Expands its applicability to stockpiles and to project and leakage emissions.

Agenda item 4.1
Paragraph 17 of the Addendum to the annotated agenda, Annex 13 (MP53 Report)

Report on the analysis of issues concerning the methodology ACM0013 (Consolidated baseline and monitoring methodology for new grid connected fossil fuel fired power plants using a less GHG intensive technology)

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Mandate from the EB

Request by EB62 to the Meth Panel:

- Carry out a **thorough analysis** of the issues raised in the information note prepared by the Meth Panel, including the assumptions underlying the recommendation and the potential overestimation of emission reductions, taking into consideration the available sources of data;

- Prepare a report of this analysis for consideration by the Board; and

- Initiate a revision of the methodology, if the thorough analysis concludes that the methodology requires improvement.

Information sources used for the analysis

- PDDs from registered projects, projects in the process of registration, and projects under validation;
- Relevant data (related to ACM0013 and grid emission factors) published by DNAs;
- A literature (e.g. IEA reports) and data review (e.g. publication by the China Electricity Council);
- A consultancy report from a power plant engineering expert, based on data provided by the International Energy Agency (IEA) Clean Coal Centre.

Determination of the baseline emission factor

PPs shall use the lower **baseline emission factor (BEF)** between two options:

- **Option 1**: BEF determined based on the most likely technology that is identified in the baseline selection procedure through investment analysis;

- **Option 2:** BEF calculated based on the average emission factor of the top 15% performers of a peer group. (Criteria for the peer group: the same fossil fuel category; constructed in the previous five years; with a comparable size as the project; and operated in the same load category)

Summary of Projects in the Pipeline for ACM0013

Country	Status	Fuel	Number of projects
Argentina	Under validation	Natural gas	1
Brazil	Under validation	Fuel oil	2
China	Registered	Coal	1
	Requesting registration	Coal	2
	Review Requested	Coal	1
	Under validation	Coal	9
India	Registered	Coal	5
	Requesting registration	Coal	1
	Review Requested	Coal	1
	Under validation	Coal	24
Iran	Under validation	Natural gas	1

Issues identified in most PDDs, related to Option 1

- No detailed guidance in the methodology, resulting in widely varying approaches, assumptions and data used across PDDs
- Use of data from *existing* plants to estimate the efficiency of a *new* baseline plant
- Lack of some project-specific considerations (coal properties, cooling technology and ambient conditions, and application of air pollution control equipment)
- In some cases, the baseline efficiency assumed in PDDs for *new* baseline plants is lower than the efficiency of *existing* plants according to national studies

Issues identified in most PDDs, related to Option 2

Lack of documentation and inconsistency of data:

- Although the methodology requires documentation in the PDD of all data and calculations used for option 2, no such documentation is available for Chinese projects

- For Indian projects, the data used in different PDDs is inconsistent

  Example: For the same reference plant in the same year significantly different efficiencies are assumed in the two different PDDs:

  - PDD for CDM7097: 36.9% for Sipat Stps 1, 2008-2009
  - PDD for CDM7564: 31.8% for Sipat Stps 1, 2008-2009

Issues identified in most PDDs, related to Option 2 (cnd.)

Significant underestimation of the baseline efficiency due to

1. The vintage of the peer group plants:
   - The commissioning date of the project plant is on average 7 years after the commissioning date of the peer group plants

2. The increase of the efficiency of new power plants over time:
   - Different data sources and power plant simulations confirmed that more recent power plants usually have a higher efficiency than older power plants

   - The data indicates that this increase of efficiency can be significant:

     - For example: Publications on the Chinese Build Margin grid emission factor indicate that the efficiency of new coal power plants was 35.82% in 2005 and 39.08% in 2008

Conclusions

Conclusion: the baseline efficiency is underestimated under both option 1 and option 2

Potential overestimation of emission reductions due to underestimation of the baseline efficiency:

- Two scenarios to reflect different assumptions of the extent of overestimation
- The effect is significant because the projects claim emission reductions from few percentage points of efficiency improvements

	Scenario A	Scenario B
Annual efficiency increase (%)	0.13%	0.3%
Annual emission reduction (MtCO2/year)	40	40
Potential overestimation (MtCO2/year)	20	25
Potential overestimation / Emission reduction (%)	50.5%	62.1%

Conclusions

The methodology allows for underestimation of baseline efficiency because it does not contain detailed guidance on how the baseline efficiency should be determined. As a consequence, it allows for:

Option 1:

(a) Varying approaches, assumptions and sources of data;
(b) Use of data of existing plants instead of new plants.

Option 2:

(a) Lack of project site specific considerations;

(b) A gap of 5 to 10 years (average 7 years) between the project activities and the peer group plants;

(c) Disregarding an increase in efficiency observed in time.

Recommendations

The Board may wish to put the methodology on hold with an immediate effect.

Current Meth Panel Actions

MP52 initiated a revision of the methodology which is not yet finalized.

Agenda item 4.1
Paragraph 18 of the Addendum to the annotated agenda

Improving approved methodologies and tools

CDM EB 65

Durban, South Africa, 21 – 25 November, 2011

Improving approved methodologies and tools

Background:

MAP 2011 Objective: Improved objectivity, clarity and integrity in the CDM by the improvement of the standards to ***enhance objectivity and environmental integrity***, using, where possible, new and innovative approaches.

Initiate work to improve the following methodologies:

- **AM0021** "Baseline methodology for decomposition of N2O from existing adipic acid productions plants"; and
- **ACM0014** "Mitigation of greenhouse gas emissions from treatment of industrial wastewater".

Thank you for your attention