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7th October 2011

Regarding: Comment on draft tool "Project and leakage emissions form composting":

Background:

Balderrie initiated and designed the CDM Project "Compost from Municipal Solid Waste in Peshawar, Pakistan" following AM0025. During two years of intensive preparation, document design, financial engineering and successful validation, our team received unique insight into the technology, the methodology and the implications for project implementation.

The Peshawar project was intended to be a pilot for establishing similar waste management plants in all large cities in Pakistan, in case it can be successfully registered under the CDM. In absence of tipping fees the realisation of further projects depends on the availability of sufficient income form emissions trading. Improvements of the existing methodology and tool are therefore essential for the continuation of this projects that would provide clean waste disposal services for millions of people in Pakistan.

Team members also collaborated with the leading waste management institute in Germany "BIFA" for the establishment of the CDM handbook for waste management commissioned by the German Ministry of the Environment.

Our company already provided the secretariat also with comments on the tool for assessment of methane emissions form waste.

General:

Balderrie highly welcomes the simplification of the assessment of composting emissions. The draft tool contains several improvements that have the potential lead to a great simplification of project activities. However simplification should not mean to reduce the reduction claim to the absolute minimum, as otherwise projects will not be able to generate sufficient income from CDM to survive.

List of detailed comments:

Determination of quantity of waste:

Besides measurement by weighbridge the measurement by belt-scales should be also allowed.

Exclusion of transport emissions:

This is very good as compost will replace synthetic fertilizer that also causes transport emissions.

Procedure for determination of CO2 from power consumption:

The measurement of the quantity of power consumed is generally no technical challenge nor does it involve high cost.

The real problem is the extremely cumbersome and complex calculation of the regional CO2-grid intensity.

Many projects do not utilize grid power to avoid postponement of validation and later cumbersome monitoring. This leads to additional cost and CO2 emissions only for the purpose to reduce validation risk.

The Secretariat should suggest that project activities that consume small quantities of power could use a default CO2 intensity for calculation of their power consumption related project emissions.

A transparent and simple approach could be to allow the utilization of the CO₂ intensity values from the IEA publication "CO₂ emissions from fuel combustion 2010" www.iea.org/co2highlights/ (page 108) that provides a CO₂ grid intensity factor for all countries.

A similar regulation should be introduced for all power consumption related project emissions, as this would be a great help to accelerate validation before the deadline in Dec. 2012.

However the solution to provide a CO₂ value per ton of waste for electricity consumption is novel and is already better than any previous solution.

Determination of methane and N₂O emissions:

We would like to bring to your attention that some Fluxbox measurement technologies involve the usage of SF₆ gas. (see <http://www.calrecycle.ca.gov/Publications/Organics/2011004.pdf> page 28.

As the complexity of the proposed measurement is still too high to find broad acceptance and also because it is still not possible to provide the verifier with sufficient prove on the accuracy of the measurement, we assume that most projects will choose the Option2-default values.

Default Values:

$EF_{CH_4,y}$ and $EF_{N_2O,y}$ These need therefore more attention and differentiation. A single default parameter EF_{CH_4} or EF_{N_2O} is an extreme simplification and seems also to be highly conservative. There should be distinctions between open windrow composting in tropical wet conditions and roofed windrows or windrows in arid countries.

Please check if the values used for establishment of the default are predominately sourced from tropical wet counties, as the default value seems to be on the higher end of possible emissions.

The uncontrolled exposure of windrows to heavy rain is one of the most cited reasons for technical problems (causing anaerobic conditions) for composting. When the windrow is covered or under a roof (what is recommended for tropical wet counties) the water intake can be controlled. In arid countries the controlled addition of water allows for optimal aerobic conditions also for open windrows. Therefore we recommend to introduce different default values for different climatic conditions (and also for roofed windrows). This is also along the IPCC guidelines.

Determination of emissions from run-off wastewater:

Very good solution. There should be included that in case of unusual weather (e.g. above average rain quantity, seasonal limited overflowing, Monsoon rain events) the run-off wastewater need not to be assessed. This is necessary as DOE will be helpless to assess the potential quantities of run-off wastewater, that are not measurable during weather extremes.

Therefore it would be useful to add a comment, that no extra measurement and proceedings need to be undertaken in case of extreme weather events.

Please specify the term "case of composting". This sentence is not complete as you need to specify what kind of composting you think of. We would suggest that this should be "open windrows".

Leakage Emissions:

Very good to allow compost to be used as cover material for landfills without deductions. This is a very wide spread practice for low quality compost without marketing possibilities.

Summary of suggested improvements:

- 1) EFCH4default:
Provide different values for climatic zones instead of a single highly conservative

e.g.:
 - Tropical wet
 - Tropical dry or Tropical wet with roofing
 - Temperate wet
 - Temperate dry or Temperate with roofing
- 2) B_{0ww} : Add instructions that eventual methane emissions from wastewater caused by extreme weather conditions have not to be assessed, as this volumes can not be measured and are not part of the normal operation.
- 3) Clear situation with SF6 gas usage for flux box. The better alternative would be to define the default values for climatic zones and technologies (open or roofed windrow)

Conclusion:

The new draft tool is a great improvement over the previous situation in AM0025.

The default value for CH4 emission need more attention to be differentiated along climatic and technical conditions as it seems to be otherwise too high for composting with controlled water addition.

The introduction of the Flux Box measurement is not a real improvement to the previous oxygen measurement as the complexity is still too high for usage in developing countries and the issue of potential manipulations is not addressed.

Generally, the tool needs to take into attention that the monitoring will take place mostly in non-industrialized waste management projects, therefore any complex measurements should be avoided. The proposed tool also falls short of providing a solution for the increased scrutiny of DOE that will not accept measurements that can be manipulated. The potential solution would be to limit the assessment of Methane and N2O emissions to the usage of default values. Default values should not be overly conservative but provide medium values for different climatic zones.

Further improvement and correction of the AM0025 and the tool for methane emissions from waste are necessary to make any composting project financially feasible. Especially the shifting of emission reductions to the future caused by the multiphase approach in the methane tool has to be corrected to avoid the unnecessary deprivation of CER income in the essential first years of project activity.

The secretariat should also take into consideration the great time pressure on project developers and DOE to finalize validation before December 2012. Any kind of improvements that will be implemented later than end of 2011 will not lead to any additional project activity.

Best regards,



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7th October 2011

Regarding: Comment on draft tool “Renewable energy power generation in insolated grids”

General:

The first move to a creation of a consolidated small scale methodology for alternative power generation is highly welcomed.

A replacement of the overlapping methodologies AMS-I.A, AMS-I.C., AMS-I.D., AMS-I.F. would considerably improve the work of project developers to make installation of alternative power generation equipment possible under a single methodology.

However the proposed draft falls short of the expectations in many aspects:

- Grid connected alternative power projects are excluded, however projects that are later on connected to the grid can continue to be included
- No idea what projects shall do that are less than 50km away from the grid
- No special consideration of microscale projects
- No consideration of the positive list of Annex 24 EB 63
- Unclear language for applicability of conditions (example “grid operator” or “region”)

Missed Chance:

It would be simple to provide a single methodology for all kind of small scale alternative power production projects. The mentioned possibility of an ex-post switch to the grid-CO2 intensity baseline shows that there are no technical problems in providing a methodology to cover off-grid and on-grid power production.

Urgency:

Facing the approaching deadline in December 2012 project developers are very sensitive in starting validation of project activities under methodologies that might be changed or replaced soon. The Meth Panel should publish urgently a statement either to announce a date of the replacement of respective methodologies (including providing drafts) or to assure project developers that the existing methodologies can be used for project registration until December 2012 (at least small scale). The Secretariat might also decide to concentrate on the positive improvement (e.g. expanding application of methodologies for offgrid power generation to grid connected) of the existing methodologies before the deadline and wait with new methodology development until Jan 2013.

List of detailed comments:

Definition of Isolated grid:

Condition 1)

- Obvious

Condition 2)

- The language is not clear: What happens if there would be 2 grid operators? Why having a grid operator should disqualify a grid for addition of alternative power generators? How is a grid operator defined? Grids of up to 100 MW capacity have naturally an “operator”.

Condition 3)

- Acceptable

Condition 4)

- By defining a minimum distance of 50 km, all potential project sites that are less than 50 km away from power grids are virtually excluded from CDM. In many countries most of the inhabited territory will be covered by this regulation.

The question remains if alternative power production that is not grid connected but less than 50km away from the grid can be registered as CDM at all.

Also the secretariat should notice that the expansion of grids in developing countries is quite fast and that a large number of projects that are at time of the start of validation more than 50 km away from the grid, can already be within the 50 km range at time of registration.

The Secretariat falls also short of acknowledging that many small scale consumers can not afford a grid connection even if less than 50 km away from the grid.

By imposing the 50km minimum distance, the secretariat is causing great insecurity for verification of projects, as the distance is permanently changing and project participants and DOE might not be totally informed about latest developments. What should happen to projects that become closer than 50km to the grid during the project period is not answered.

LED street lighting with large potential for grid independent operation will be also excluded in most of the cases from CDM.

Condition 5)

With the help of batteries a capacity increase of alternative power in systems with less than 80% diesel can be feasible. There is therefore no reason why to limit project activities to systems with at least 80% diesel.

Potential remedy:

- 1) The minimum distance is reduced to a realistic dimension like 5km
- 2) All offgrid project activities that are closer than the threshold can use grid CO2 intensities
- 3) Reduce the threshold of 80% diesel capacity to e.g. 40%

Alternative scenario:

Alternative (b) Stand alone Solar PV generation should not be an alternative but should automatically defined as additional (see EB63 Annex 24).

Same should be possible for alternative (e) regarding the solar capacity of hybrid systems

As it could be in some rare cases more economical to use solar power sources on the long term, the investment decisions are always influenced on short term financial advantages. Therefore solar power systems are additional per-se on the foreseeable future. The Meth Panel is free to introduce financial additional tests for solar power supply at any time in the future when hopefully the investment cost of this systems can compete with conventional diesel based power supply.

There is therefore no reason why project developers would need to go through the exercise of convincing DOEs of the obvious.

Problems with interpretation of positive list:

EB 63 Annex 24 provides grid-connected solar power up to 15 MW with automatic additionality.

As the proposed methodology defines offgrid as at least 50km away from grid connection: Does that imply that all offgrid PV installations that are closer than 50km can use the "grid-connected" privilege and could therefore be automatic additional up to 15 MW, while systems that are more than 50 km away from the grid are limited to 5MW along EB 63 Annex23?

Potential remedy:

There is no obvious reason why the positive list for grid connected renewable from Annex 24 for EB 63 should not generally applied also to offgrid applications regardless of the distance to the grid and additional up to 15 MW.

Therefore also the EB Annex 24 should be adapted for offgrid usage of the positive list.

Calculation of DATE_{Baseline}

For projects that are below the threshold of the “positive list” (15 MW) no calculation of the remaining technical lifetime of existing equipment should be necessary.

The Secretariat might opt to completely remove this procedure, as it is just increasing the complexity for validation and will considerably hamper application of the methodology for POA.

As for all alternative power technologies exempt hydro dams, backup diesel generators are necessary to guarantee full time supply, the issue of the lifetime of existing generators does not influence the emission reduction.

The existing formulation leaves it totally open what to do in case a shorter technical life expectancy will be established than the project period.

In developing countries it is easy to stipulate that broken equipment would be repaired or replaced by similar generators. The most practical way to avoid all this problems would be to delete any mentioning of remaining technical life of existing equipment.

Summary of suggested improvements:

Definition of offgrid:

- Reconsider large distance of 50 Km
- Explain status of offgrid projects that are less than 50 Km and not grid connected
- Create exemptions for micro scale projects
- Add definitions of grids that do not provide regular service (less than 12 hours supply, better 8 hours)
- Allow projects also in systems with less than 80% diesel
- Use only option 1,3 and 5a

Non applicability:

- Delete reference to “region” or define the term.

Identification for baseline and additionality:

- Add reference to positive list and include solar up to 15 MW for automatic additionality
- Add privilege for micro projects (solar road illumination, solar home systems, solar pumps)
- Delete alternative (b)
- Delete alternative (c)
- Delete alternative (e)
- A simple comparison with the least cost fossil fuel generation equipment should be sufficient

Calculation of DATE

- delete completely

Connection to isolated grid and national grid:

- Clear situation for all projects less than 50km away from the grid
- Allow usage of IEA values for CO2 intensity of the grid

Conclusion:

The proposed methodology fails to provide a simple and secure baseline for offgrid alternative power generation.

If implemented, the demanded minimum distance of 50km will lead to major distortions and cause multiple complications for verification.

The methodology leaves it completely open if CDM projects are possible in the zone between grid connected power plants and project sites that are 50 km away from grids.

Special consideration has to be given to micro scale projects like LED-street illumination and domestic solar power generation, that are also offgrid and can be mini-grids.

The calculation of grid power CO2 intensity along the established tool is far to complex for small scale project activities – the now available data by IEA should be utilized.

Best regards,



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