	CDM: Response form for request for clarification on Approved Methodologies (version 01.1)
Date of Meth Panel meeting:	19 - 23 January 2009
Title and number of request for clarification	Guidance on continued applicability of methodologies in relation to changes in project plans for a registered project AM_CLA_0129
Summary of the query: Please use the space below to summarize the request for clarification on the related approved methodologies.	
<p>This request for clarification refers to the response of request for clarification AM_CLA_0080 in which guidance was sought on the continued applicability of the methodologies AM0025 Version 05, ACM0001 Version 04 and AMS-I.D Version 09 in relation to the P.T. Navigat Organic Energy Indonesia Integrated Solid Waste Management (GALFAD) Project in Bali, Indonesia (the “Project”), which was registered on 20 May 2007.</p> <p>This request for clarification deals with two issues:</p> <ol style="list-style-type: none"> 1. Change in project plans from the registered CDM-PDD. 2. Change in monitoring plans. <p>The project proponent wishes to provide more information in line with the points raised by Meth Panel:</p> <p><u>1. Change in project plans from the registered CDM-PDD</u></p> <p><i>(a) Meth Panel response re increased waste acceptance: “The information provided in the clarification is not sufficient to assess the reasons in change in volume of waste processed. The stated reason is that the delays in project have increased the volume. But if one compares the project growth in waste as reported in registered CDM-PDD, waste of 400 plus TPD were only likely to be achieved in year 2009 onwards. Also, the issue is important to understand whether the increase in waste is because the project activity has led to collection of waste that earlier was not disposed in the landfill site. In such situations the baseline emissions from excess waste may not be the same as waste disposed in the landfill site”</i></p> <p>PP Response: The project participant fully agrees with the Meth Panel that there is a danger the baseline emissions from the “excess waste” may not be the same as what is given in the PDD if the project activity has led to the collection of waste that would in the absence of the project activity not make its way to a landfill. It also recognizes that the additionality of the project may be called into question due to the changed plans, and hence attempts, in this follow up submission, to further clarify the issues. With respect to the change in waste projection, the project participant would like to reiterate that there are two reasons for the increase in waste volume. The first reason is the delay in the project implementation. Although the operation has been delayed, the annual growth in waste volume means that the project deals with more waste in year 1 when it starts in 2008 than had it started in 2007. However, as pointed out by the Meth Panel, this alone does not explain the increase in waste volume. The second reason for this increase is due to the greater-than-projected growth in waste volume. The growth projection in the PDD was based on analysis conducted in 2005 by NOEI. This analysis was made based on NOEI’s own surveys of incoming waste, sampling to deduce the approximate composition of the waste, together with economic growth projections. The following facts are noteworthy:</p>	

(i) In 2002, the World Bank completed a solid waste management study for Bali, which projected the waste volume to increase from approximately 222,220 tonnes/yr in 2005 to 276,079 tonnes/yr in 2010, as given below. This study was completed before the Bali bombing of October 2002.

Tabel 11
Total Proyeksi Timbulan Sampah Domestik per Kabupaten s/d Tahun 2020

No	Kabupaten	Timbulan Sampah (ton/tahun)											
		Tahun									2020		
		2000			2005			2010			Organik	Non Organik	Total
	Organik	Non Organik	Total	Organik	Non Organik	Total	Organik	Non Organik	Total	Organik	Non Organik	Total	
1	Diponegoro	35.764	22.833	58.597	45.569	30.622	76.187	62.013	44.335	106.348	117.043	88.822	205.865
2	Badung	18.656	24.139	42.794	22.624	29.144	51.768	29.321	37.604	66.925	49.153	62.756	111.912
3	Ganyar	34.841	11.263	46.104	40.780	13.244	54.025	50.643	19.500	70.143	80.457	33.837	114.293
4	Tabanan	23.319	10.156	33.475	27.957	12.283	40.240	35.049	17.614	52.663	57.379	31.047	88.426
	Total Bali Selatan	112.579	68.392	180.971	136.926	85.294	222.220	177.026	119.053	296.079	304.029	216.465	520.494
							610						
5	Klungkung	10.819	6.520	17.339	12.158	7.726	19.884	14.463	9.797	24.260	21.038	15.156	36.194
6	Karangasem	11.480	6.918	18.397	13.852	8.802	22.654	17.680	11.976	29.656	29.738	21.424	51.162
7	Bangli	10.649	6.417	17.066	12.968	8.241	21.209	16.706	11.316	28.022	28.625	20.622	49.246
8	Buleleng	28.757	17.329	46.085	34.477	21.909	56.385	43.978	29.791	73.769	72.609	52.308	124.916
9	Jembrana	8.147	4.909	13.056	9.351	5.942	15.292	8.962	6.071	15.033	17.279	12.448	29.726
	Total Luar Bali Selatan	69.851	42.092	111.943	82.805	52.620	135.425	101.788	68.951	170.740	169.290	121.958	291.246
	Total Bali	182.430	110.483	292.914	219.731	137.914	357.645	278.814	188.004	466.819	473.319	338.423	811.743

Sumber: Perhitungan Konsultan

Figure 1 (above): Excerpt from World Bank Study (in Bahasa language). The circled figures represent annual tonnage in respective years.

(ii) The bombing devastated the island, with tourist numbers plummeting and economic activity grinding to a halt. When NOEI conducted its waste characterization study in 2005, it was in the context of low economic activity and an uncertain future. It naturally made conservative assumptions on economic and hence waste volume growth. At the time, it assumed total waste quantity at project start to be about 156,000 tpy (or 435 tpd) with 62% organic and paper content, which translates to 267 tpd available for landfilling as provided in the registered PDD.

(iii) A second bomb rocked Bali in 2005, hitting it while it was still in the midst of a recovery from the effects of the first bomb. However, the second bomb had an opposite effect on the island's people and economy. Rather than collapsing as in the first incident, the economy instead grew rapidly. This is evidenced by the corresponding rapid growth in waste, which as at July 2008 stood at over 700 tonnes/day or over 250,000 tonnes/yr (result of surveys of incoming waste over a period of seven days, conducted by NOEI in cooperation with SARBAGITA, the methodology adopted was the same as when the first waste characterization study was conducted in 2005), as shown in Attachment 1 of the request for clarification.

(iv) The survey result in (iii) is closer to the World Bank's projection carried out in 2002 than NOEI's projection carried out in 2005. This suggests that the Bali economy has rapidly and fully recovered from the effects of the bombings.

The project participant hopes that the above clearly and transparently clarifies that the apparent significant jump in waste quantities was due to natural reasons, and not due either to a deliberate attempt to lower the economic attractiveness of the project in the PDD, or from collecting waste from sources other than that stated in the PDD in order to artificially increase the waste volume and claim CERs from what may be a waste source that will not be landfilled in the absence of the project activity.

For the former issue, this submission is accompanied by a revised version of the IRR projection submitted for the original clarification request, as Attachment 2 of the request for clarification.

For the latter issue, the attached letter from SARBAGITA unequivocally states that the increase in waste is due to forces beyond SARBAGITA's control, i.e. the growth in economic activity. The letter also separately clarifies that all waste in Bali must be landfilled regardless of the Project. This is submitted as Attachment 3 of the request for clarification.

For ease of reference, the letter from SARBAGITA strongly requesting NOEI to increase its waste handling capacity by 60%, from 500tpd to 800tpd (to avoid confusion, it is clarified that these figures relate to the TOTAL incoming waste, including plastics and inerts; at a glance, the tonnage mentioned in the PDD seem inconsistent with this figure, but in fact is consistent as the PDD only deals with the tonnage of the organic waste stream), submitted together with the original clarification request, is resubmitted as Attachment 4 of the request for clarification.

(b) Meth Panel response re investment analysis: *“The investment analysis carried out in the registered PDD and the one for present situation are not comparable. The analysis in registered PDD did not consider the depreciation cost, which is correct, whereas, depreciation is shown as a cost in new calculations. Depreciation is not a cash expense but an accounting expense and deducted from revenues for the purpose of calculating tax payments. The international practice is to add the depreciation back to profits to calculate “profit after taxes”. Further, the Panel recommends that in such situations, if allowed by the Board, new investment analysis in its entirety shall be validated by the DOE and reviewed by the RIT.”*

PP Response: The Meth Panel's comments are well taken. Indeed, the Meth Panel is correct that the investment analysis carried out in the registered PDD and the one for the present situation are not comparable. The investment analysis in the registered PDD is a pre-tax IRR calculation, whereas the investment analysis contained in the original request for clarification submission was an after-tax IRR calculation. In this submission, two calculations are included. One is the pre-tax IRR computed in the same way as the registered PDD, as requested by the Meth Panel. This computation returns an IRR of 5.94%.

The other is the after-tax calculation as per the original clarification request submission. Although not comparable to the calculation carried out for the registered PDD, this is more conservative in that the calculation deals with the accounting “loss” due to depreciation by assuming a tax credit (it is entirely unclear as of now whether NOEI can apply for tax credits, or the exact terms for such tax credits). This is a very conservative assumption and results in a post-tax profit of 8.55%. In comparison to this, when a pre-tax IRR is computed in the same way as the registered PDD, since there is no assumption of a tax credit, the IRR is lower (5.94%). Thus, the post-tax IRR calculation with a conservative assumption for a tax credit, prepared for the original request for clarification submission, is more conservative in the context of additionality assessment. It is also noted that the original submission does in fact add back depreciation, in accordance with international practice. Please refer to Sheet “IRR (revised)” Cells S12:33 of the attached spreadsheet. For transparency, three sets of calculations are contained in the revised IRR calculation spreadsheet, submitted as Attachment 2 of the request for clarification. These are:

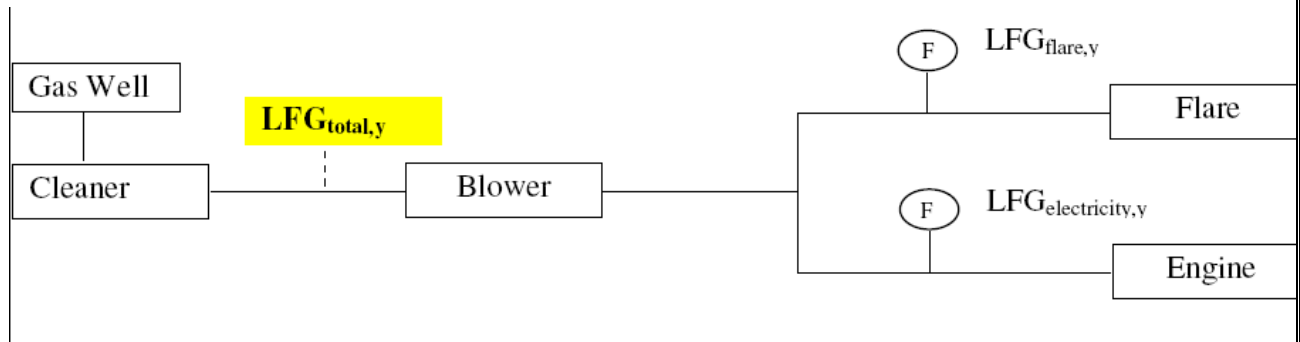
- (i) The original pre-tax IRR calculation which accompanied the registered PDD (2.53%). Please refer to Sheet “IRR(registered CDM-PDD pre-tax)” Cell I7.
- (ii) The pre-tax IRR calculation for the revised project plans (5.94%). Please refer to Sheet “IRR (revised)” Cells L12:34. This is newly added in the revised calculation.
- (iii) The post-tax IRR calculation, with tax credits, for the revised project plans (8.55%). Please refer to Sheet “IRR (revised)” Cell S34.

The PP would further like to re-emphasize that whether a pre-tax or after-tax IRR calculation is applied, the project activity clearly remains infeasible in the absence of revenues from CERs.

2. Change in monitoring plans

(a) Meth Panel response re monitoring of LFG generated: “The Panel in its earlier clarification (AM_CLA_20) stated the redundancy of metering is to ensure conservative estimation of emission reductions. Therefore, the PPs should measure gas flow at the generation and collection point, which could be located after the cleaning device, and also at all the source of destruction of LFG (flare and energy equipments)”

PP Response: The PP would like to thank the Meth Panel for its guidance. As per the guidance, additional equipment $LFG_{total,y}$ as highlighted in the below diagram will be installed.



(b) Meth Panel response re volumetric flow rate of exhaust gas: “The volumetric flow rate of exhaust gas is based on a stoichiometric calculation of the combustion process, which depends on the chemical composition of the residual gas, the amount of air supplied to combust it and the composition of the exhaust gas in the tool. The procedure requires measuring/estimating the concentration of O_2 , CO_2 , and N_2 . The procedure in the tool is for the stack exhaust gas, whereas the PPs are asking for using the procedure to measure the air flow. It is not clear whether the PPs are suggesting to use the procedure provided in the tool to estimate the flow rate of stack exhaust gas or the flow rate of air that is supplied to the flare for combusting the residual gas from the anaerobic digester. The PPs should more clearly specify what is being requested and also clearly indicate the equations that would be used to estimate the requested flow rate. Moreover, the parameters that will have to be monitored to undertake the estimation have to be specified.”

PP Response: The project participant recognizes that the first submission may not have been clear in its request. To restate the issue, the project participant wishes to change the way in which SG_y , the stack gas volume flow rate, is monitored. It is emphasized that SG_y (or SG_h , hourly basis) is exactly equivalent to $TV_{n,FG,h}$ as given in the Methodological “Tool to determine project emissions from flaring gases containing methane” (Annex 13, EB28)

The difficulty in monitoring SG_y for the Project stems from the fact that in the registered monitoring plan written based on AM0025, it is stated that SG_y will be “computed via the measurement of inlet biogas and air flow rates (VFN and VAN), stack temperature (T_s) and operating hour of each power generator (OP_{gen})”. However, as explained in the first submission, the project participant has found it extremely difficult to install a system to directly measure the air flow rates due to the large size of the air duct. The inability to measure the air flow rate directly causes the inability to monitor SG_y . The project participant therefore requests to use the same method for monitoring $TV_{n,FG,h}$ given in the Tool, instead of the method stated for SG_y in AM0025 and the registered monitoring plan. The parameters to be monitored are therefore $fv_{i,h}$ and $t_{o2,h}$.

Recommendation by the Meth Panel:

Please use the space below to provide amendments /changes (in your expert view, if necessary).

See below.

Answer to authors of the request for clarification by the Meth Panel :

Please use the space below to provide an answer to the authors of the above query

The Meth Panel would like to clarify that:

CDM project differing from description in registered PDD

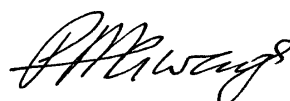
The change in volume of waste treated by the project activity from that described in the registered PDD falls under the category “implemented CDM project differing from description in registered PDD”. Procedures to handle this issue are still under consideration by the CDM EB. Therefore, the Meth Panel can only address the issue **after receiving guidance from the CDM EB** on this matter. Furthermore, the Meth Panel would like to thank the project proponents for their submission which explains the reasons in change in volume of waste processed.

Change in the monitoring plans

The project proponents are advised to follow the “Procedures for revising monitoring plans in accordance with paragraph 57 of the modalities and procedures for the CDM” (Annex 34, EB26). As per these procedures, changes in the monitoring plans cannot be submitted as requests for clarification.



Signature of Meth Panel Chair
Date: 23/01/2009 (Akihiro Kuroki)



Signature of Meth Panel Vice-Chair
Date: 23/01/2009 (Philip Gwage)

Information to be completed by the secretariat	
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