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Att: CDM Executive Board

Your ref.:	Our ref.:	Date:
CDM Ref 1134	MRSA/ETEL	15 October 2007

**Response to request for review**

**“ESTRE Pedreira Landfill Gás Project (EPLGP)” (1134)**

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by three Board members concerning DNV's request for review for the request for registration of the project activity entitled “ESTRE Pedreira Landfill Gás Project (EPLGP)” (1134), and we would like to provide the following response to the issues raised by the requests for review.

**Comment 1:**

*1. Further demonstration of the additionality of the project activity is required.*

**DNV Response:**

Complementary information sent by PP and information included as part of the responses for the comments below confirm that

- 1) the project is not common practice in Brazil,
- 2) there is no legislation requiring flaring or utilization of LFG,
- 3) the CDM related income is the only financial or economic benefit to support the project.
- 4) All similar projects in Brazil were implemented or are being implemented as CDM project activities

The arguments above strongly demonstrate that the project is additional.

**Comment 2:**

*The simple cost analysis scenario is applied. Further evidence to substantiate the analysis should be provided.*

**DNV Response:**

The project involves CAPEX on investments in an efficient gas collection system, flaring equipment as well as O&M costs, while there are no other revenues than CDM related income (since flaring does not generate any revenue stream or cost saving). Thus simple cost analysis is the most applicable financial analysis method. The project participants clearly explain in their response for comment 6 of this request for review why the alternative which includes revenue stream other than carbon credits (i.e construction and operation of a electricity generation plant in the site) does not represent plausible neither feasible baseline and project scenarios.

While adopting simple cost analysis, an attachment to the PDD submitted for registration included an estimation of investment CAPEX to implement the project by the time the decision to undertake the project was taken. As a response to Comment 2, project participants submitted to DNV copy of a contract signed between project

participant and the equipment supplier / contractor Multiambiente Comércio E Serviços De Ambiente E Energia dated 12 April 2007 which confirms that the initial investment forecast included in the PDD was reasonable.

### **Comment 3:**

*Version 3 of the Tool for the demonstration and assessment of additionality should be applied.*

### **DNV Response:**

The PDD will be revised with the latest version of the *Tool for the demonstration and assessment of additionality* as a response to Comment 3.

The PDD submitted for registration, applying version 02 of the tool, correctly demonstrates the additionality of the project, independently of the version of the additionality tool applied. For this specific project, both versions lead to the same result.

### **Comment 4:**

*The DOE shall further clarify how they have clarified the non-existence of local regulations in relation to the proposed activity of the project activity, as they state in page 11 of 48 of Validation report “DNV was able to confirm that possible future legislation that would require landfills to quantify and flare a certain amount of the gas produced is not likely to be implemented in near future, considering the waste disposition situation in Brazil”. In addition, the DOE should clarify what they understand precisely as “not likely”*

### **DNV Response:**

The Methane to Market initiative’s report “Brazilian Country Profile<sup>1</sup>” states “*There is not a specific law to landfills or solid waste management, nor a national policy to this issue*”. Managing municipal solid waste (MSW) in a complete, proper and environmentally friendly manner is one of the main policy challenges for Brazilian public sector in an economic context of capital and investment capacity limitations of municipalities all over the Country. Since 1991 the Brazilian congress has been discussing the text for a National Policy of Solid Waste which is still in phase of law ante-project (ante-project 203/1991). The law ante-project includes regulatory guidelines, principles and responsibilities for waste collections storage, recycling, reuse and disposal. Based on DNV’s experience in the country, it is DNV’s opinion that future legislation on methane recovery or destruction in landfills is unlikely to be proposed or passed in near future since the public sector in Brazil does have more important MSW related priorities to address in a social and environmental perspective, such as the low level of waste collection in the North and Northeast regions of the country and poor conditions of disposal sites (majority of them are uncontrolled dump sites). It is note worthy that under the monitoring plan, it should be checked whether applicable legislation was changed or new legislation was passed in the context.

### **Comment 5:**

*Since the Brazilian landfill regulations do not mandate LFG collection and destruction and only a small amount of the methane generated is currently burned due to safety and odour reasons, an “Adjustment Factor” of 20% is deemed appropriate”. The DOE shall further clarify how they have validated the Adjustment Factor of 20% and how they determined that the level adopted is appropriate and, as required by the methodology, the adjustment factor applied should be clearly justified.*

### **DNV Response:**

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<sup>1</sup> Methane to Markets Partnership – Country Profiles: *Brazilian Country Profile*. Authors: Alves, João Wagner Alves (CETESB, Environment Agency of the State of Sao Paulo) and Lucon, Oswaldo dos Santos (SMA – SP, Secretary of Environment of the State of Sao Paulo). Document available at: <http://www.methanetomarkets.org/resources/landfills>

It is opinion of DNV that the adopted Adjustment Factor (AF) of 20% (default value established in AM0003) is conservative in the context of the proposed project activity. The common practice for landfills in Brazil (including the project site) has the following characteristics, among others:

- Natural venting the landfill gas by exhaust wells (without systematic procedure for combusting or keeping existing passive flares lit).
- Simple and rudimentary passive venting systems (few number of chimneys that are constructed from large rocks inside a frame built from old steel drums) which cannot be compared with fully engineered, properly installed and maintained active capturing systems.
- Covering of waste would not be undertaken daily in the case of the project landfill. This practice results not only in reduced LFG generation but also in additional leakage of LFG through the waste piles.

As a result of such practices, the volume of methane likely to be destroyed in the baseline scenario is to be considered really small. Based on the common practices in the country and the practices in the project site, confirmed during the site visit carried out during the validation process, it is DNV's opinion that the volume of methane likely to be destroyed in the baseline scenario is to be considered really small, which makes the 20% AF factor conservative.

***Comment 6:***

*The reference to the economic and financial hurdles of the project in the Validation Report should be substantiated with further evidence.*

**DNV Response:**

As previously emphasized the CDM project activity does not generate any financial or economic benefit other than the CDM related income. During the project decision phase, utilization of LFG to generation of electricity was not considered a viable option as a CDM project activity. According to expertise of project participants (which include experience with other LFG CDM projects), due to the limited gas production of site, sales of generated electricity would not compensate the additional investments, O&M costs and associated risks and uncertainties.

***Comment 7:***

*Investment information provided shall be included in the valid PDD version. In addition, editorial review should be practiced in the final version of the PDD.*

**DNV Response:**

The PDD is proposed to be amended with investment information as a response to Comment 7.

***Comment 8:***

*The PP/DOE shall clarify whether the pressure and temperature measuring instruments are independent or the flowmeter measures both temperature and pressure.*

**DNV Response:**

Please, refer to the project developers' response.

We sincerely hope that the Board accepts our above explanations.

Yours faithfully.

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