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Att: CDM Executive Board

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Response to request for review of project activity 1942 "FEDEPALMA SECTORAL CDM UMBRELLA PROJECT FOR METHANE CAPTURE, FOSSIL FUEL DISPLACEMENT AND COGENERATION OF RENEWABLE ENERGY"

Dear Members of the CDM Executive Board,

We refer to the requests for review received for project activity 1942 "FEDEPALMA SECTORAL CDM UMBRELLA PROJECT FOR METHANE CAPTURE, FOSSIL FUEL DISPLACEMENT AND COGENERATION OF RENEWABLE ENERGY and would like to herewith provide our initial response to the issues raised in the requests for review.

1. The PP/DOE should further clarify the additionality of the project activity, in particular, the financial analysis conducted for: a) 16 plants rather than 32 plants, and b) a 10-year period whereas the project lifetime is of 30 years.

DNV Response: For the assessment of the additionality, DNV has considered the financial analysis performed as part of the CDM pre-feasibility study conducted in 2004. This analysis was found to be main basis for making the decision to develop this umbrella project as a CDM project as the analysis showed that implementing the measures for mitigating GHG emissions would not be financially attractive in absence of CDM benefits. This financial analysis was based on 16 representative plants and considered a 10-year period. The selected 16 plants were found to be representative for the whole umbrella project as all the plants use the same basic production process and the same set of waste water treatment and energy technologies, differing only in size and capacity.

As stated in the *Guidance on the Assessment of Investment Analysis* the use of investment analysis to demonstrate additionality is intended to assess whether or not a reasonable investor would or not decide to proceed with a particular project activity without the benefits of the CDM. This decision will therefore be based on the relevant information available at the time of the investment decision.

As described in the project participants' response to the request for review, a financial analysis carried out in 2008 for each of the 32 plants by the investment bank INCORBANK in preparation of actual project implementation. This financial feasibility study of Technology Option I with current price levels, based on the PCA designs, including cash flow analyses for

the 30 year lifetime of the project confirms that in absence of incomes the project results in negative cash flows and NPV in the absence of CDM benefits. The actual investment costs were found higher than originally estimated in 2004 and the application of the 30 year project lifetime without CER sales results in an even more negative NPV than a 10 year time frame. Hence, the revised cash flow analysis confirms that the implementation of the project is not financially attractive at all 32 plants in absence of CDM benefits and thus additional.

2. The PP/DOE should clarify the starting date of the project activity, as per CDM glossary of terms.

<u>DNV Response</u>: The start date of the project initially considered is 15 November 2006 when FEDEPALMA concluded contractual consolidations with the participating plants in the umbrella project. This was considered the start date for implementing the project as a CDM project activity and a financial commitment was made by contracting DNV for the validation of the project which started with the publication of the PDD for comments by Parties, stakeholders and NGOs on 22 November 2006.

However, in the light of the clarifications provided by the Board at its 41st meeting clarifying that the start date shall be considered to be the date on which the project participants have committed to expenditures related to the implementation or related to the construction of the project activity, the project participants have revised the start date to 1 January 2009 or the date of CDM registration, whichever is later. Project construction will not begin until after the project has been registered.

3. The DOE should clarify the technological choice for each plant and validate the applicability of the baseline methodology for each plant.

DNV Response: The original project design foresaw that all plants will implement new covered anaerobic digesters (Technology Option I) to capture and mitigate methane emissions, and if, and only if Technology Option I will successfully generate the expected volume of biogas, then the 32 plant owners may select to utilize the biogas by either Technology Option II (generation of renewable energy for own use) or Technology Option III (optimized co-generation and sale of excess electricity to the grid).

DNV accepted the project design although the technology options to be implemented are not yet decided for the 32 plants as this project design allows the project to be implemented in a flexible manner and to utilize biogas instead of simply flaring it in case biogas utilization becomes feasible. Regardless of the eventual choice of technology option, each plant is found to meet the applicability criteria for AM00013, version 04, since for each plant a) the existing waste water treatment system is an open lagoon system and b) there is no sludge storage before land application. As part of the validation DNV visited 4 plants (selected in a random sample from the same region) in order to assess current waste water treatment conditions. For the plants not visited photographs documenting the current waste water treatment conditions were requested and reviewed. Moreover, DNV performed interviews with for example Alvaro Portill of the Corporación Autónoma Regional de Santander and Jesus Alberto Garcia of CENIPALMA to confirm that the current existing waste water treatment system is an open lagoon system. The visit to some plants selected by random, the photographic evidences

presented and the interviews have provided DNV with sufficient evidence to determine that the applicability criteria of AM0013 are met by all plants included in the umbrella project.

The actual selection of the technology options will be subject for verification by the verifying DOE, Moreover, only those plants that expressed interest in utilizing biogas to produce electricity or thermal energy were collecting data on the historic electricity consumptions during 3 years (no date on thermal energy consumption was collected as displacement of thermal energy will not result in reduction of CO₂ emissions as currently biomass residues are used to generate thermal energy). If other plants would choose to utilize biogas for electricity generation, data on the historic electricity would need to be reported in the monitoring reports and verified by the verifying DOE.

However, as a response to the requests for review, the project participants have revised the PDD to only request CDM registration for Technology Option I.

4. The DOE should further clarify the monitoring plan for each plant.

DNV Response: The monitoring plan in the PDD submitted for registration provides for monitoring the relevant parameters for the three technology options. The monitoring plan is thus not specific for each plant, but provides the basis for selecting the appropriate monitoring parameters depending on the eventual choice of the technology options to be implemented over time.

As a response to the requests for review, the project participants have modified the PDD to specify the monitoring technology and monitoring plan for implementation of Technology Option I.

We sincerely hope that the Board accepts our aforementioned explanations.

Yours faithfully

Michael

for Det Norske Veritas Certification AS

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Technical Director

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