UNFCCC Secretariat
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Att: CDM Executive Board

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| Your ref.: | Our ref.: | Date: |
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| CDM Ref 0363 | ASAK/ETEL | 12 June 2006 |

# Response to request for review
## "Angkor Bio Cogen Rice Husk Power in Cambodia" project (0363)

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by four Board members concerning DNV's request for registration of the "Angkor Bio Cogen Rice Husk Power in Cambodia" project (0363).

The issues raised by the review requests can be summarised as follows:

1) Although included in the project system boundary, excess of energy is considered in neither the project nor the baseline emissions and this raises questions on possible leakage;
2) The excess energy - or any additional volume of rice husk left for decay – should have been included in the project emissions and the baseline;
3) The project can not claim emission reductions due to displacement of diesel oil used for the generation of additional power generated by the project activity as long as there is no evidence that the capacity increase of the rice production is not related to the project activity.

DNV would like to provide an initial response to the above issues raised by the requests for review:

1) It is our understanding that the "excess energy" issue refers to the surplus electricity supplied to neighbouring factories and the neighbouring community. As indicated in figure 5 (pg. 17) of the PDD:
   - The surplus electricity to be supplied to the neighbouring factories is included in the project boundary and both baseline and project emissions related to the generation of this surplus electricity is accounted for in accordance with version 07 of AMS-I.A and AMS-III.E.
   - The electricity to be supplied to the neighbouring community is not included in the project boundary. As stated in section D.3 of the PDD, in the case where Angkor Rice Mill sells surplus electricity to the neighbouring community, the amount of the sold electricity will be subtracted from the amount of generated electricity in GHG emission reduction calculation. Nonetheless, leakage effects from the electricity supplied to the neighbouring community are addressed in a conservative manner. The emissions from generating the electricity supplied to the neighbouring community ($CH_4$ and $N_2O$ emissions from combusting rice husk) are included in the project emissions as the project emissions

include all the emissions from combusting rice husk (there is no exclusion of emissions from rice husk used for generation of surplus electricity). On the other hand, no potential baseline emissions from the surplus electricity supplied to the neighbouring community (due to the displacement of electricity generation based on fossil fuels) are claimed.

2) As stated above, project and baseline emissions related to surplus electricity supplied to neighbouring factories and the neighbouring community are included in an adequate and conservative manner. The project activity does not envisage any volume of rice husk to be left for decay and envisages utilisation of all available rice husk. In any case, the project will only claim baseline emissions ($CH_4$ emissions from rice husk left for decay) for the volumes of rice husk combusted by the project activity. In the unlikely event that there will be any volume of rice husk left for decay, the project will not affect the $CH_4$ emissions from the decay of any such rice husk and the $CH_4$ emissions from the decay of any such rice husk would be the same in both the project and the baseline scenario.

3) In its validation of the project, DNV was able to confirm that the increase in production capacity at the Angkor Rice Mill is due to an increase in the demand for rice which will occur also in absence of the proposed CDM project activity. As consequence, the demand for electricity by the Angkor Rice Mill would increase from 380 kW before the capacity increase to 2 MW. Since the project is the first rice husk power generation project in Cambodia and the project thus faces technological barriers, the most likely baseline scenario would be that the additional electricity demand by the Angkor Rice Mill would be met by increasing the current use of diesel oil for generating electricity.

We hope that the Board accepts the above explanations and will provide further clarifications, if needed, on the "Angkor Bio Cogen Rice Husk Power in Cambodia" project.

Yours faithfully
for DNV

Michael Lehmann
*Technical Director*
International Climate Change Services

Akira Sekine
*CDM auditor*

Enclosures:

- Letter by Angkor Bio Cogen dated 2 June 2006
- Letter by Angkor Kasekam Roongroeung, dated 30 May 2006

Angkor Bio Cogen

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2 June 2006

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Dear Members of the CDM Executive Board

**RESPONSE TO REQUEST FOR REVIEW ON ANGKOR BIO COGEN RICE HUSK POWER PROJECT**

We refer to the requests for review raised by members of the CDM Executive Board for Angkor Bio Cogen Rice Husk Power Project (0335).

Requests for review suggest

1) Emissions from excess energy and left-over biomass have not been adequately addressed, and
2) The Project should only claim emissions reduction from existing diesel power generation at the rice mill.

We would like to provide our preliminary response to the above issues as follows.

1) Issue 1: Emissions from excess energy and left-over biomass

We believe this issue refers to the surplus electricity that may be supplied to neighboring factories and communities. As confirmed during validation, the electricity supplied to neighboring factories is included in the project boundary and baseline emissions as the baseline fuel is diesel. The electricity supplied to neighboring communities is excluded from the project boundary as shown in Section B.4. and accordingly, the PDD states in Section D.3. that any electricity supplied to neighboring communities will be subtracted from baseline calculation.

Regarding the project emission from left-over biomass, the project activity does not envisage any left-over biomass as all biomass is planned to be used for power generation. If any electricity is produced in excess of what is required at the rice mill and neighboring factories, it will be supplied to neighboring communities. As stated above, the portion of electricity supplied to neighboring communities will be subtracted from baseline emission calculation. The project emission, however, will be accounted for all biomass fuel used for all electricity generation for the sake of conservativeness. If necessary, a more thorough explanation can be provided in the PDD.

2) Issue 2: Claiming displacement of diesel oil for the generation of additional power due to the project activity.

As supported by the attached letter from Angkor Kasekam Roongroeung (AKR), the owner and operator of Angkor Rice Mill to which electricity generated by the project activity will be supplied, the expected increase in power generation capacity is due to the increase in demand of rice, regardless of the CDM project activity. In the absence of the CDM project activity, the increased demand of electricity will be met by increasing the current use of diesel oil. AKR's statement is supported by the fact that the grid electricity network does not reach the project area at present. Although there is a plan for a high-voltage transmission line to be installed along the national road No.4 near the Project area, the development of distribution lines to serve industrial facilities or individual households in the area including the Angkor

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Rice Mill is not included in this plan and to the best of local knowledge, the option to secure adequate energy from the local grid system will not be available for a foreseeable future. If necessary, an explanation can be added in the PDD.

3) Other Minor Issues
We believe the PDD has been written following the instructions provided in the CDM-SSC-PDD (Version 2) and Guidelines for Completing the Simplified Project Design Document. However, we are ready to make amendments if necessary.

As stated above, we believe the Angkor Bio Cogen Rice Husk Power Project, the first CDM project in Cambodia to have received Cambodian DNA approval and request for registration, fulfill all requirements for a small-scale CDM project activity and kindly request the CDM Executive Board to register the Project at its 25th EB Meeting.

Yours Sincerely,

Adisorn Chieu
Managing Director
Angkor Bio Cogen

ANGKOR RICE

ក្រុមហ៊ុន អង្គរកសិកម្មរុងរឿង ចំកាត់

唅哼農業米較有限公司

Angkor Kasekam Roongroeung Co., Ltd.

30 May 2006

UNFCCC CDM Executive Board Secretariat
Martin-Luter-King-Strasse 8
D-53153 Bonn
Germany

Dear Members of the CDM Executive Board

## RESPONSE TO REQUEST FOR REVIEW ON ANGKOR BIO COGEN RICE HUSK POWER PROJECT

In reference to the expected increase in power demand at the Angkor Rice Mill, I hereby state that the increase in power demand is the result of expansion of rice production capacity at the Angkor Rice Mill due to the rise in demand of rice regardless of the CDM project activity.

Angkor Kasekam Roongroeung, the owner and operator of Angkor Rice Mill, produces rice for domestic consumption, as well as for export market. We contribute a major portion of Cambodia's rice export. The rice production at the Angkor Rice Mill has increased steadily since 2001. The area of rice cultivation of farmers producing rice for Angkor Rice Mill has reached 50,000 hectares compared to just 30,000 hectares in 2001 and is still continuing to increase. The increase in rice production has contributed to the improvement of the economic situation of the farmers. However, due to current capacity limitation, AKR has not been able to meet both international and local demand in recent times. Capacity expansion of the rice mill resulting in increased power generation capacity is an urgent need at the Angkor Rice Mill and will be done by increasing the use of diesel oil in the absence of the CDM Project given the situation where grid electricity network is not available in the project area at present and is not likely to be developed to the extent of meeting the energy needs of an individual industrial facility, such as the Angkor Rice Mill, for a foreseeable future.

I kindly request the CDM Executive Board to accept this statement and register the Angkor Bio Cogen Rice Husk Power Project at its 25th meeting.

Yours sincerely,

Chieu Hieng
Managing Director
Angkor Kasekam Roongroeung

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