



UNFCCC Secretariat
Martin-Luther-King-Strasse 8
D-53153 Bonn
Germany

DET NORSKE VERITAS
CERTIFICATION AS
Veritasveien 1
1322 Høvik
Norway
Tel: +47 6757 9900
Fax: +47 6757 9911
<http://www.dnv.com>

Att: CDM Executive Board

Your ref.:
CDM Ref 1024

Our ref.:
MRSA/ETEL

Date:
26 June 2007

Response to request for review “Phu Khieo Bio-Energy Cogeneration Project” (1024)

Dear Members of the CDM Executive Board,

We refer to the requests for review raised by three Board members concerning DNV’s request for registration of the “Phu Khieo Bio-Energy Cogeneration Project” (1024), and we would like to provide the following response to the issues raised by the requests for review.

Comment 1:

“Further evidence should be provided regarding how a benchmark rate of 12% has been validated. In doing so it should be noted that the additionality tool requires that, “project developers shall demonstrate that his benchmark has been consistently used in the past, i.e. that project activities under similar conditions developed by the same company used the same benchmark”

DNV Response:

DNV accepted a 12% internal benchmark based on two facts: 1) the special economical situation in Thailand when the decision to proceed with the project was made 2) the validity of the benchmark applied compared to other suitable benchmarks.

It was demonstrated that the project developer had applied this internal benchmark to other projects¹ from 2001 to the time of the validation. Furthermore, the IRR calculations and the WACC structure² for the group was validated and found correct. The answer by the project developer provides further details and references assessed by DNV for the calculation of the WACC.

It should be taken into account that the project IRR (7.79%) is below other possible benchmark rates also in line with the additionality tool, e.g. a benchmark rate of 9.69% as a result of applying to the Thailand’s Government bond yield for 11 years (debt payment period³ as per the financial analysis provided) of 4.98% a country risk premium⁴ of 2.25%.

Comment 2:

“It should be confirmed how any risk premiums applied in the calculation of the WACC have been validated in the context of a project activity with a 21 year firm contract. Please provide more detailed information on how the risk premiums in the WACC excel file can be justified”.

DNV Response:

The 21 year firm contract does not alleviate all the risks faced by the project and thus, it is justified to apply corrective factors to take different risks into account. More specifically, the project faces risks due to the instability of bagasse supply, penalties to be applied if the agreed electricity is not supplied, not forecasted

¹ Petrogreen Ethanol Project. Financial calculations details provided with project developer’s answer.

² WACC.xls. Document submitted for registration as an appendix to the PDD.

³ Financialmodel.pdf. Document submitted for registration as an appendix to the PDD.

⁴ Stern Business School. <http://pages.stern.nyu.edu/~adamodar/pc/archives/ctryprem02.xls>

costs of other biomass residues and due to be a new technology for the project developer. The power purchase agreement (PPA) penalty clause and evidences of the project having to pay it during the time the project has been already in operation are provided as annexes to the project developer's answer.

Detailed information of the risk premiums in the WACC excel file are provided in the project developer's answer. The values and sources have been verified and are considered correct. DNV acknowledge a small difference in the country risk premium and the debt risk premium values, which does not affect the final WACC rate of 12%.

Comment 3:

"In addition the assumption that the project is 40% equity financed does not match with the IRR calculation which indicates 34% equity financing"

DNV Response:

As explained in the project developer's answer, the 40% equity financed shown in the WACC calculation is based on Mitr Phol Group financing plan, while the equity financing for Phu Khieo Bio-Energy Co., Ltd, as a separate company, is only 34%, as shown in the IRR calculation³ for this project.

Comment 4:

"The IRR without CDM revenues is quoted as being 7,79% on page 14 of the PDD and 9.2% on page 15".

DNV Response:

Please refer to the response provided by the project participants which explains why two IRR values are stated in the PDD.

Comment 5:

"The validation of the input values for the IRR calculation should be further explained, in particular the price paid for bagasse as the baseline assumes that excess bagasse is left to decay"

DNV Response:

The bagasse price is based on the agreement between UFIC sugar mill and Phu Khieo, which are two different legal entities. Evidences of the payment of the agreed price have been provided by the project developer and are considered correct. These evidences are annexed to the project developer answer.

We sincerely hope that the Board accepts our above explanations.

Yours faithfully.

for DET NORSKE VERITAS CERTIFICATION AS



Einar Telnes
Director
International Climate Change Service



Miguel Rescalvo Santandreu
Project Manager
International Climate Change Service