

# RESPONSE TO THE REQUEST FOR REVIEW



**From:** Bureau Veritas Holding SAS

**To:** CDM Team

**Attention:** John Kilani; Secretary to the CDM Executive Board

**Reference:** Request for review - 3261 Monjolinho Energética S.A.'s CDM Project

Dear CDM Team,

Regarding the above mentioned reference, Bureau Veritas Certification, BVC Holding SAS, had performed the Validation of the above mentioned Project. Subsequently, three requests for review have been received from members of the Board. For each issue raised in the request for review, the project participants and DOE describes below the responses for these issues

## **Item (a)**

*"The DOE needs to further explain how it has validated the suitability of the input values the suitability of the input values to the investment analysis in line with the VVM version 01 paragraph 109, in particular: (a) the investment cost, as it is not clear whether it was applicable at the time of the investment decision, in line with the EB51 Annex 58 paragraph 6"*

The 1<sup>st</sup> "Monjolinho Energética S.A.'s CDM Project." PDD (number 2362) was made available for public comments in 11th April 2008 , but according to the Board opinion expressed in the EB 48th Meeting (17th July 2009) the project " *could not be registered because the PDD submitted for validation and the project design have undergone major changes without the DOE issuing Corrective Action Requests, and therefore a recommencement of the validation is required.*". This opinion was related mainly to the changes occurred in the installed capacity between the first version of the PDD web hosted and the PDD submitted for registration. In 30th July 2009 Project Participants decide to follow the Board recommendation and recommenced the process updating the PDD with the investment analysis with the new installed capacity (number 3261) .

Below we described some important information about this new version specifically regarding the total investment cost.

First of all, during the project physical implementation, internal engineer's studies demonstrated the possibility of an increase in the installed capacity from 67 MW to 74 MW, and Monjolinho Energética S.A (MONEL) formally asked the National Agency of Electric Energy (ANEEL) to improve the installed capacity of the project in 20th December 2007 through the letter MONEL-CE-0098/07.

On 04<sup>th</sup> January 2008, MONEL and the National Bank of Social and Economic Development (BNDES) concluded the previous negotiations and signed a Loan Contract which assured R\$ 170 million from BNDES to finance the project with the installed capacity of 67 MW and considering additional R\$ 66 million from MONEL own resources, the initial total investment cost for the project was R\$ 236 million. The

validation team had cross-checked the referred amount with the contract signed with BNDES.

It is important to say that, when MONEL required the change in the installed capacity, an investment analysis was conducted with the possible new installed capacity of 74 MW which is presented in the new PDD (number 3261).

Also as described at the new PDD the requirement of the installed capacity change happened before the Deliberative Board Meeting number 13 occurred in 24<sup>th</sup> January 2008 , when it was decided that MONEL would conduct the CDM Process and the revenues from selling carbon credits are fundamental for this project , being this 13<sup>o</sup> Meeting of the Deliberative Board considered as the moment of the investment decision regarding for the new project (number 3261) although at that moment there is no certainty that the change in the installed capacity would be approved or denied by ANEEL and MONEL had no control about the result and the time of this process .

Although MONEL had required the change in the installed capacity in December 2007, the construction works have never stopped since plant construction beginning in 16<sup>th</sup> July 2007. Entrepreneurs proceed constructing the plant independently of ANEEL`s decision, taking all the risks to continuous the project without a clear approval of the new capacity, but recognizing that the project is still additional with the 67 MW or 74 MW, and that the CDM benefits remains considered necessary in the decision to undertake the project as a proposed CDM project activity

The ANEEL authorization in the change of installed capacity from 67 MW to 74 MW only occurred in 04<sup>th</sup> June 2008, through the ANEEL Dispatch 2.151 and on 17<sup>th</sup> April 2009, Monel had sent to BNDES the Letter MONEL – CE 0116/09 requesting the additional loan values. The values information presented in this letter shows that the project`s total investment would be changed due the new installed capacity and other reasons from R\$ 230 million to R\$ 281 million which includes an increase on the initial loan amount of BNDES resources of R\$ 29 million, varying from R\$ 170 million to R\$ 199 million. This documentation was used to crosscheck the total investment cost previously used in the investment analysis.

In this way, the total Investment cost, including MONEL resources and BNDES resources were valid and applicable at the time of the investment decision taken by the project participant

The Validation team validates the timing of the investment decision and the consistency and appropriateness of the input values with this timing based on the relevant information available at the time of the investment decision, as above described, in line with the EB51 Annex 58 paragraph 6”.

#### **Item (b)**

*“The DOE needs to further explain how it has validated the suitability of the input values the suitability of the input values to the investment analysis in line with the VVM version 01 paragraph 109, in particular: (b) the exclusion of the salvage value, as the*

*analysis is conducted for 34.5 years including 3 years of investment period, while the operational lifetime of the project activity is 35 years;*

- Investment Analysis

The investment analysis described at financial spreadsheet supplied for registration is conducted for a period of 34 years, where the cash flow starts in the 1<sup>st</sup> semester of 2007 and finish in the 2<sup>nd</sup> semester of 2040, being the time of years 2007,2008 and the 1<sup>st</sup> semester 2009 as the investment period and the remaining time till 2<sup>nd</sup> semester of 2040 as operational period, as it is indicated in the spreadsheet line 22. The second semester of 2006 was in blank without any value as well as the years beyond 2040. It is important to clarify that the presence of the second semester of 2006 and years beyond 2040 have no impact in the Project IRR and they are presented in the spreadsheet without any specific reason, used only to facilitate its preparation.

- Operational Lifetime

The Glossary of CDM Terms describes the Operational Lifetime of a project activity as the period during which the project activity is in operation. This period for HPP Monjolinho is 31,5 years , instead of wrongly informed as 35 years , starting during the 2<sup>nd</sup> semester of 2009 and finishing in December ,2040 as described below :

The operation period starts during the 2<sup>nd</sup> semester of 2009 as indicated in the financial spreadsheet line 22. This period could be validated by the DOE crosschecking the ANEEL Dispatch, number 2,668, 21<sup>st</sup> July 2009 and ANEEL Dispatch, number 2,785, 30<sup>th</sup> July 2009. These dispatches authorize MONEL to begin the operation of each turbine. Power Plant can just begin their operation after this kind of authorization provided by ANEEL.

The operation period ends up in December, 2040 as indicated in the financial spreadsheet line 22. This period was established due to ANEEL Resolution 262 of 17/04/2007 where all the hydro power plant project which had sold energy between the years of 2005 and 2007 were allowed to have the time of their concession until the time of their the Power Purchase Agreements (PPAs) with electricity buyers. Monel PPAs are firmed till December 2040. The validation team crosschecked these legal documents (ANEEL Resolution 262 of 17/04/2007 and 24 PPAs and twenty-four (24) Power Purchase Agreements established between MONEL and 24 electricity buyers in 12th March 2007).

Therefore, the information provided at PDD section C.1.2 was wrong , because it indicates 35 years and not the operational lifetime of the project as above explained , which is 31,5 years and under this circumstances no salvage value is applicable .

The PDD was revised in the item C.1.2 and the Validation Report was also revised to include this information.

**Item (c)**

*“The DOE needs to further explain how it has validated the suitability of the input values to the investment analysis in line with the VVM version 01 paragraph 109, in*

*particular: (c) the assured electricity, as it still corresponds to the initial capacity of 67MW and not to the increased capacity of 74 MW.”*

It is important to make some clarification about the definition of the Assured Energy and about Electricity Market in Brazil.

The assured energy is formally calculated and established for commercial purposes by the regulators (MME)<sup>12</sup>. The marketable product of a hydro power plant in Brazil is the assured energy. These values are the maximum quantity of electricity that can be sold under long term contracts<sup>3</sup>, called Power Purchase Agreements (PPAs). PricewaterhouseCoopers also confirms this fact in its Third Party Independent Audit Statement, page 24, item B.

In 6<sup>th</sup> June 2008, MONEL asked to MME to recalculate the assured energy for the plant through the letter CE-0074/2008. MONEL internal engineering studies, elaborated based on technical note made available by MME to explain how must be calculated the assured energy, estimates an increase of its assured energy from 43.1 MW to 45.1 MW, due the new installed capacity. This revision is still in analysis as it was confirmed by Brazilian National Agency of Electric Energy (ANEEL)<sup>4</sup>.

However, as the official assured electricity is 43.1 MW, during the time of the investment decision and during the time of the PDD elaboration, project participants considered this amount in its base-spreadsheet. In the sensitivity analysis, Project Participants included other scenarios with assured energy variations. One of them is the scenario expected by the company. Sensitivity analysis of the PDD is presented below:

Projected Situation	Assured Electricity	Project IRR
0%	43.1 MW	7.88 %
4.64%	45.1 MW	8.38 %
5%	45.26 MW	8.42 %
10%	47.41 MW	8.94 %

The Benchmarking for the project is 10.8% (WACC).

To avoid any doubt, in this answer, Project Participants added more scenarios (despite they are unlikely to happen) to the sensitivity analysis, as below:

Projected Situation	Assured Electricity	Project IRR
15%	49.57 MW	9.45 %
20%	51.72 MW	9.95 %
25%	53.88 MW	10.45 %
29%	55.60 MW	10.83%

These scenarios shows that project IRR just gets higher than the WACC if the assured energy increases 29% to 55.60 MW what is a impossible scenario due to characteristics of the plant and engineering studies.

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<sup>1</sup>Ministry of Mines and Energy Decree 5.163, 30<sup>th</sup> July 2004.

<sup>2</sup> ANEEL Ordinance 736, 18<sup>th</sup> August 2010.

<sup>3</sup> ANEEL – Assured Energy Handbook, Page 11.

<sup>4</sup> ANEEL - [http://www.aneel.gov.br/arquivos/PDF/Processo\\_energia\\_assegurada\\_SGH\\_Jun2010.pdf](http://www.aneel.gov.br/arquivos/PDF/Processo_energia_assegurada_SGH_Jun2010.pdf)

The suitability of the assured electricity was cross-checked again by the DOE, after this question issued by the Secretariat, which confirms that the assured electricity of the plant is still 43.1 MW. As, there is a possibility of assured energy increase, scenarios with assured energy variation were included in the PDD. They showed that the project is additional. In this answer, PPs supplied other scenarios with higher increase in the assured energy which showed that Project IRR just gets higher the benchmarking with a 29% increase in the assured energy, which is not a credible scenario.

**Comment from Brazilian DNA:**

*-“The PDD has been submitted for registration as version 4 and dated as May 10th 2010. This version is distinct from the one contained in the letter of approval issued by the Brazilian DNA (the LOA refer to the PDD dated as October 27th 2009 and identified as Version 3).*

*-There is reference to PDD version 3 instead of version 4 in the Validation Report: "The validation findings presented in this report relate to the project as described in the PDD version 03".*

The PDD submitted for registration was PDD version 03. During the first completeness check process, it was necessary to include some information due to secretariat requirements.

Project Participants did a mistake and changed the PDD version as number 04. The PDD had to be changed to PDD Version 03.1 to include the questions raised during the 1<sup>st</sup> Completeness Check. As there is the necessity of revising section C.1.2 of the PDD submitted after the 1<sup>st</sup> completeness check due to the question (b) raised during this request for review, the PDD now submitted will be PDD version 03.1 , which includes both , completeness check and request for review revisions .

The Validation Report will be revised accordingly to this new PDD version number.

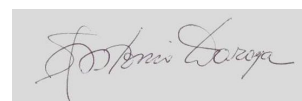
Confident that the above comments will support you to adequately address the raised issues, the DOE remains available at any time for additional clarification.

Yours faithfully , for Bureau Veritas Certification, BVC Holding SAS.

Handwritten signature of Ricardo Fontenele in blue ink, with the initials 'RFS' written below it.

Ricardo Fontenele

Local Product Manager

Handwritten signature of Antonio Daraya in black ink, enclosed in a grey rectangular box.

Antonio Daraya

GHG Team Leader Verifier