Validation opinion
Notification / Requesting approval of changes from the project activity as described in the registered project design document

Title of project activity:			
Lages Methane Avoidance Project			
CDM reference number:		DNV project No.:	
0268		PRJC-208533-2010-CCS-BRA	
Type of request:	☒ Notification of changes from project activity as described in the registered PDD (i.e. changes do not raise any concerns with regard to i) additionality, ii) the scale of CDM project activity and/or iii) the applicability and application of baseline methodology ☐ Request for approval of changes from project activity as described in the registered PDD		
Date	Work carried out by:	Work verified by:	Approved by:
7 March 2011	Felipe Antunes	Simon Wong Yon-Sing	Hendrik W. Brinks

1 Description of the changes as compared to the description in the registered PDD

The change in the project activity is related to the additional use of fine branches smaller than 15 cm diameter (called “toretes”) as wood waste to generate electricity to be supplied to the Brazilian grid and steam to be supplied to the wood industries Batistella and Sofia. The registered PDD does not envisage the use of this kind of wood waste. The revised PDD also clarifies that when both industries are not operating, the steam is used to produce electricity, which is sold to the local distribution company and/or to industrial clients.

2 Assessment of the changes

Assessment of when the changes occurred

Since 2006, many wood industries that export their production in the Lages region, have faced an economic crisis which has obliged them to reduce or even to interrupt their activities. This was the specific case for Sofia and Battistella wood industries, two of the main wood residues suppliers of the Lages Methane Avoidance Project. This situation has triggered, in 2008, an increasing and unexpected demand of wood residues from the spot market in order to secure the project activity with the necessary amount of fuel to produce and deliver energy to the grid and honor the PPAs signed with regional distribution companies.

As verified by DNV*, the impacts that USD devaluation had in wood supplying market in 2008 has triggered a modification of purchasing activities of the Lages Project. The reduction in the wood residues amount available kept the spot market wood residues prices high and

*http://www.exportnews.com.br/noticia.php?noticia=823&titulo=Indústria%20da%20Madeira%20aponta%20saídas%20para%20reverter%20perdas%20com%20exportações

required an alternative to assure a continuous provision of residues for project's operation. Two options available for the purchasing of wood residues from: (a) some more distant suppliers (since the lower wood waste prices from these suppliers compensated the higher transportation costs) and (b) suppliers of "toretes" (residues composed of fine branches smaller than 15 cm diameter obtained from the regular thinning of planted pinus imn the region). These branches are provided from spot market suppliers that are in the same region covered by the remaining suppliers. Since these branches would be left in the forests, no methane avoidance is considered.

Assessment of the reasons for these changes taking place

Changes took place due to interruption of the industrial activities from Batistella and Sofia.

Assessment of whether the changes would have been known to the project participants prior to registration of the project activity

The USD devaluation in 2008 and its impact in the wood supplying market were not foreseen prior to the registration of the project activity.

Assessment of how the changes may impact the overall operation/ability of the project activity to deliver emission reductions as stated in the PDD

The baseline emissions will be reduced compared to the baseline emissions forecasted in the original PDD. The use of fine branches from the regular thinning of planted pinus ("torete") was not foreseen in the original PDD and no methane avoidance can be claimed from the anaerobic digestion of this wood waste variety.

The fraction of fine branches is not fixed for the crediting period and varies in accordance with market conditions (i.e.; availability of normal residues and price of the fine branches). Moreover, since the use of the fine branches as an additional wood residue in the cogeneration facility is a recent activity in the cogeneration plant's operational history, the baseline emission was reduced proportionally to the average use of fine branches in the last 4 years (since the beginning of the practice of using this wood waste variety). Based on the consumption levels of the fine branches over the total cogeneration plant's consumption of biomass residues, an average of 10% has been defined for recalculating the baseline emission reductions forecasted in the original PDD. Considering that short period of analysis (only 4 years), this amount cannot be considered permanent and may present yearly variations as a result of market conditions. For instance, in the case that Sofia and Batistella return to operate, reaching the original industrial production, the fine branches *might not to be used and the baseline emissions foreseen in the original PDD might be achieved again.*

Although, the fine branches are not considered in the determination of the baseline (MCF=0), the use of this biomass residues have been conservatively included in the calculation of project emissions without changing the estimations on the original PDD.

3 DNV has checked this information and the PDD has been, as a result, revised accordingly. Assessment of the impact of the changes

Do the changes raise concerns with regard to any of the following aspects?	☐ Additionality ☐ Scale of CDM project activity ☐ Applicability and application of baseline methodology ☒ Not applicable (the changes do not raise any concerns)

Assessment of impacts of the changes on additionality

The additionality of the project was established through a barrier analysis:

(i) Technological barriers: the project represented one of the first applications of the technology in the country, leading to technological concerns even when the technology had been proven in other countries. The introduction of toretes as a fuel does not affect this barrier, since it does not represent a change in technology.

(ii) Barriers due to prevailing practice: there was a lack of will to change the biomass disposal practice with or without regulations. The introduction of toretes as a fuel does not affect this barrier, since it does not represent a change in biomass disposal practices.

(iii) Other barriers: lack of experience and/or procedures for collecting the biomass from dispersed sources. The introduction of toretes as a fuel does not affect this barrier, since it still necessary to collect biomass from dispersed sources.

Assessment of impacts of the changes on the scale of the CDM project activity

There is no impact on of the changes on the scale of the CDM project activity, as the emission reductions do not increase and are still below the limit of 15 000 tonnes established in the methodology AMS-III.E Version 7.

Assessment of impacts of the changes on the applicability and application of baseline methodology

"Toretes" are composed of fine branches with a diameter smaller than 15 cm diameter obtained from the regular thinning of planted *pinus* in the region and can be occasionally bought in the Spot Market to be used as a backup fuel at the cogeneration facility. The changes do not affect the applicability and application of the baseline methodology. The emissions due to transportation of "toretes", as well as emissions due to combustion of biomass treated are accounted as project emissions. On the other hand, since toretes have a MCF of zero, due the aerobic decay in the forest, it does not account as baseline emissions. DNV considers this approach conservative.

According to the evidences evaluated by the DOE during the validation process, the baseline scenario to Lages Project was defined as the business-as-usual scenario of continued dumping of wood waste in stockpiles in the absence of the project activity, mainly from the spot market suppliers located far away from the project site. DNV acknowledges that these waste biomass does not have other use. The project activity has 147 registered suppliers, however only 24 have capacity to supply 90% of waste wood, as confirmed by the list of delivery receipts of biomass bought by Lages Bioenergética Ltda. from suppliers on open market from June 2008 to May 2009.

The use of "toretes" in the project activity does not cause any effect in the barriers the project activity faces without CDM benefits, considering that the common practice is to lay it in the forest, as confirmed in the Aracruz (a major wood company) website[*]. These branches are provided from spot market suppliers that are in the same region covered by the remaining suppliers. In the absence of the project activity these branches would be left in the forests.

[*] http://web.archive.org/web/20021216234111/http://www.aracruz.com.br/port/madeira.htm

4 Validation opinion

It is DNV's opinion that the changes to the project activity would not impact the additionality of the project activity negatively in the registered PDD, neither change the scale of the CDM project activity nor impact the applicability/application of baseline methodology.

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