CLEAN DEVELOPMENT MECHANISM
SIMPLIFIED PROJECT DESIGN DOCUMENT
FOR SMALL-SCALE PROJECT ACTIVITIES (SSC-CDM-PDD)
Version 02

CONTENTS

SECTION A. General description of the small-scale project activity

A.1. Title of the small-scale project activity:

Bunge Guará biomass project (hereafter referred to simply as "Guará Project").
PDD version number: 3
Date: 07 February 2006.

A.2. Description of the small-scale project activity:

The Project consists in the retrofitting of 2 furnaces that used to burn LPG by 2 fixed grating furnaces that burn renewable biomass (eucalyptus firewood from renewable energetic forests), for granulation and drying fertilizers process, at Guará plant.

Figure 1: Guará fixed grating furnaces that burn renewable biomass

Guará is a plant that produces simple and compound fertilizer for agriculture: SSP Superfosfato Simples and NPK. The plant consists in:

- 1 facility of acidulation with capacity of 360.000 t/year;
- 2 facilities of granulation with capacity of 360.000 t/year;
- 2 facilities of granules mixing, being one coupled with store in big bag sacks, with total capacity of 450.000 t/year; and
- 1 facility of simple element sack storing with capacity of 25 t/hour.

Guará Project obtains the biomass from surrounding eucalyptus' energetic forests.

Sustainable development

The project will contribute to the use of sustainable renewable energy sources instead of non renewable ones.

This indigenous and cleaner source of thermal energy have an important contribution to environmental sustainability by reducing carbon dioxide emissions that would have occurred otherwise in the absence of the project. The project activity reduces emissions of greenhouse gas (GHG) by avoiding the combustion of fossil fuel source – LPG - (and CO_2 emissions), which would be generating (and emitting) in the absence of the project. Biomass combustion also emits CO_2, however its net emissions are considered zero, once it consumes CO_2 during photosynthesis.

Guará Project takes a advantage of the ash generated by the biomass combustion, utilizing it to enrich the fertilizers produced.

The project includes pollution control systems for atmospheric emissions and complies with Brazilian environmental regulations.

The biomass furnaces were developed, manufactured and installed by Guará plant, which provided local employment. The plant has more than 240 employees, including the 8 workers hired specifically for the Project activity.

Bunge Fertilizantes S.A. is responsible for the training, maintenance and service on the furnace technology, which improves the local manpower skills and provides an opening for employment or recruitment of skilled staff.

About project participants

Bunge Fertilizantes S.A. is the owner of Guará plant, which started operation in 1981.

Bunge Corporation is in Brazil since 1905. Bunge is the world's largest oilseed processor and largest seller of bottled oils to consumer. The company is the leader in South America in the fertilizer and nutritional ingredients for animal food industry. Bunge has twenty four thousand employees working in more than 30 countries around the world, manufacturing over one hundred million tons of seeds per year. The corporation yearly net sales are higher than a US$ twenty two billion.

In alignment with its commitment to sustainable development, Bunge foresaw in the carbon offset market an opportunity to expand the line of services offered to its clients using its global presence to facilitate the financial structuring and financing of projects backed by carbon credits and put in practice in its plants actions towards sustainable development. To this end, Bunge signed a joint venture agreement with Ecoinvest in September of last year to form Ecoinvest Carbon, and has been changing its energetic matrix toward a cleaner one.

A.3. Project participants:

Table 1 – Parties involved

Name of Party involved (*) ((host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
Brazil (host Party)	Bunge Fertilizantes S.A. (Private)	No
	Ecoinvest Carbon Assessoria Ltda. (Private)	No
(*) In accordance with the CDM modalities and procedures, at the time of making the CDM-PDD public at the stage of validation, a Party involved may or may not have provided its approval. At the time of requesting registration, the approval by the Party(ies) involved is required.		

Detailed contact information on parties and private/public entities involved in the project activity are listed in Annex 1.

A.4. Technical description of the small-scale project activity:

Guará Project applies the "fixed grating furnace" technology. The biomass fixed grating furnaces were developed, manufactured and installed by Bunge Fertilizantes S.A.

According to the needs of fertilizers drying process, the thermal energy generation occurs with biomass burning, under standard controls, with the induction of the atmospheric air by exhaustors that drive the air flow throw the grating, heating the furnace. Before going to the atmosphere, for particulate material separation, the gases are directed to cyclones and send to the gas washers. The temperature of the gas that gets out the dryer is controlled by indicators.

Table 2 – Information regarding Guará biomass furnace

Manufactured by	Bunge Fertilizantes S.A.
Local of manufacturing	Guará / São Paulo / Brazil
Date of manufacturing	May 2003 – August 2003
Date of installation	September 2003
Nominal life time	21 years
Fuel used	Eucalyptus firewood
Nominal Capacity	5 Gcal/h

A.4.1. Location of the small-scale project activity:

A.4.1.1. Host Party(ies):

Brazil.

A.4.1.2. Region/State/Province etc.:

Southeast Region / State of São Paulo.

A.4.1.3. City/Town/Community etc:

Guará.

A.4.1.4. Detail of physical location, including information allowing the unique identification of this small-scale project activity(ies):

The project activity is located at Bunge Guará plant. Guará is a city of around 20,000 inhabitants, according to IBGE, 2004.

Bunge Fertilizantes S.A. – Guará Industrial Facility
Via Anhangüera, km 397
14580-000 – Guará
São Paulo - Brazil

South Latitude 20º 25' 42"
West Longitude 47º 49' 27"

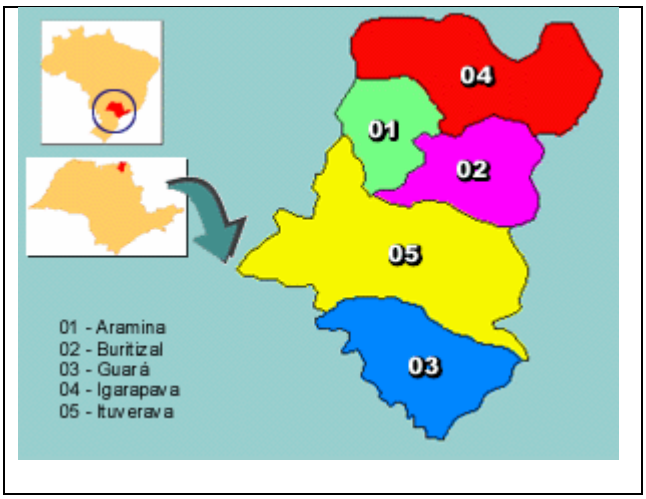

Figure 2: Geographical Position of the City of Guará
(Source: City Brazil, 2005 http://www.citybrazil.com.br)

A.4.2. Type and category(ies) and technology of the small-scale project activity:

Guará Project is a small scale project activity and falls under the category I.C according to the Appendix B of the Simplified Modalities and Procedures for Small-Scale CDM project activities. It is a "Thermal energy for the user" project.

The total installed capacity of the 2 fixed grating furnaces is 10 Gcal/h, i.e.:

$$10 \text{ Gcal/h} = 41{,}868 \text{ MJ/h} = (41{,}868 \text{ MJ})/(3{,}600 \text{ s}) = 11.63 \text{ MW}$$

Hence, the installed capacity is lower than 15 MW.

A.4.3. Brief explanation of how the anthropogenic emissions of anthropogenic greenhouse gas (GHGs) by sources are to be reduced by the proposed small-scale project activity, including why the emission reductions would not occur in the absence of the proposed small-scale project activity, taking into account national and/or sectoral policies and circumstances:

The emission reductions from Guará Project are achieved through using renewable wood, a fuel with lower carbon emission factor than the fuel previously used (LPG). The combustion of renewable biomass is considered carbon neutral and the project activity therefore has no GHG emission compared to the emissions from LPG furnaces, which constitutes GHG emissions in the baseline. Details are provided in section B.

The biomass used by the project activity comes from dedicated eucalyptus energetic forests, planted in previously degraded land. Bunge Guará have annual contracts with the wood suppliers and controls that they are registered at IBAMA - *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (Brazilian Institute of Environment and Renewable Natural Resources). The biomass suppliers are situated on already energetic forest's areas and deforested areas, which were previously used among other activities to grow cattle. The forest was not created by Guará Project.

No leakage is considered as a result of the project because energy generating equipment was dismantled and converted to biomass grating furnace.

A.4.3.1 Estimated amount of emission reductions over the chosen crediting period:

Table 3 – Estimated emission reductions

Years	Annual estimation of emission reductions [tCO_2]
2003 (starting 20 September)	4,700
2004	14,101
2005	14,101
2006	14,101
2007	14,101
2008	14,101
2009	14,101
2010 (until 19 September)	9,401
Total estimated reductions (tonnes of CO_2eq)	98,707
Total number of crediting years	7
Annual average over the crediting period of estimated reductions (tonnes of CO_2eq)	14,101

A.4.4. Public funding of the small-scale project activity:

No public funding was used in the development of the project activity.

A.4.5. Confirmation that the small-scale project activity is not a debundled component of a larger project activity:

Bunge Fertilizantes S.A does not have any other CDM project activity in the same site and category. The project consists of switching fossil fuel to renewable fuel with an installed capacity of less than 15 MW and it is not component of other project activity.

SECTION B. Application of a baseline methodology:

B.1. Title and reference of the approved baseline methodology applied to the small-scale project activity:

Type I – Renewable energy projects / I.C. Thermal energy for the user

B.2 Project category applicable to the small-scale project activity:

The choice of the applicable baseline calculation for the project category is justified since the project activity meets the following applicability conditions:

Table 4 – Applicability conditions

Project type	Type I- Renewable Energy Project
Project category	I.C. Thermal energy for the user
Technology/ Measure	The project activity uses fixed grating furnace technology with a generation capacity lesser than 15MW (manufacturer). The renewable energy technology (biomass for drying) that supplies user with thermal energy that displaces fossil fuel as required by Appendix B of the simplified modalities and procedures for small-scale CDM project activities.
Boundary	The project boundary is Guará plant.
Baseline	For renewable energy technologies that displace technologies using fossil fuels, the simplified baseline is the fuel consumption of the technologies that would have been used in the absence of the project activity times an emission coefficient for the fossil fuel displaced based on conservative appendix B to the SSM&P). Please refer to section E.
Leakage	Once energy generating equipment was dismantled and converted to biomass grating furnace, leakage was not considered.
Monitoring	For renewable energy technologies that displaces fossil fuels, the consumption of biomass is the only parameter that needs to be monitored.

B.3. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:

The additionality of the project activity is assessed and demonstrated through Attachment A to Appendix B of the Simplified Modalities and Procedures for small-scale CDM project activities.

In absence of the project activity the most likely scenario would be the use of LPG in the operation of the dryers.

Despite the barriers associated with the project, Bunge Fertilizantes S.A. decided to implement it. The fact that the project would be able to benefit from carbon credits was one of the key factors in the decision making.

Step 0

The contacts between Bunge and Ecoinvest started on march 2003, when Bunge looked for information about the potential usage of CO_2 reduction credits for its industrial facilities in Brazil. At that moment there was special interest in biomass based projects, such as the present project activity. Evidence is available with project proponents.

Bunge expected that the carbon offset market could be an opportunity to expand the line of services offered to its clients. The company global presence could be used to facilitate the financial structuring and financing of projects, backed by carbon credits. After all, Bunge signed a joint venture agreement with Ecoinvest in September of last year to form Ecoinvest Carbon, and has been changing its energetic matrix toward a cleaner one.

Investment barrier

The thermal supply from biomass involved the installation of new equipment and an investment cost of approximately US$ 94,000.

Bunge Guará had to approve the project with Bunge board and faced significant barriers to this end. The investment in fuel change in an operating plant was faced as very risky by the board, which required a lot of work from Guará plant to approve it. The CDM incentives were used by Guará plant to help defend the project.

Technological barrier

Bunge Fertilizantes S.A. designed, manufactured, installed and is responsible for the maintenance of the biomass furnaces. Biomass furnaces are more laborious than LPG furnaces and required hiring and training of new workers.

The activities related to biomass required a larger stock area, storage of biomass and transportation of biomass from storage area to the furnaces. The activities related to the LPG were much simpler than that, the supplier trucks just introduce the LPG into the tanks, and from there it goes straight to the furnaces, without human intervention.

Barrier due to prevailing practice

The operation with LPG was well established in Guará plant and the change to biomass incurred in higher maintenance and operational costs. The operation with LPG was easier due to the existence of less operational steps such as biomass storage in open field stockpiles, biomass handling in the stockpiles to allow adequate drying, biomass transportation from stockpile to furnace, ash generation in the furnaces and adequate final disposal, payment of forest reposition tax, hiring of new workers, training of operators and maintenance technicians.

Besides, the use of biomass in long pieces is an innovation in Bunge Fertilizantes S.A. units, that uses wood chips when consume biomass fuel. The installation of wood chips furnaces was analyzed by Bunge Guará but the limited space turned it unfeasible.

Other barriers

The implementation of the project activity also faced a barrier related with secure of biomass supplying, the so-called "forestry blackout" (*apagão florestal*). The main risk of Guará fuel switch was, and still is, the wood supplying. In the 1990's, Brazilian experts started to study the so-called "apagão florestal", literally speaking "forestry blackout", which means that the break even point between demand and supply of wood was coming up, and a wood rationing was getting closer.

According to BNDES – *Banco Nacional de Desenvolvimento* (Brazilian National Development Bank), there are some inhibition factors of the wood growth sector in the country: absence of a long term sectoral police – absence of planning; the institutional model is not directed to the production – lack of instruments; complexity of legislation, that discriminates and restricts the forestry plantations; expansion of forestry base is dependent almost exclusively of big corporations; insufficiency insertion of small and medium rural producers.

Through Pronaf - *Programa Nacional de Fortalecimento da Agricultura Familiar* (National Program of Strengthening the Familiar Agriculture), the Brazilian government is encouraging reforestation in small properties. However the impact of this program is far away from the market necessity. According to www.celuloseonline.com.br, the of shortage is hard to be reverted, because the alternative would be the increase of wood offer, which is a very unlikely scenario in the short-medium term taking into account the reduced investments in reforestation and the long term maturation of them.

As showed in Figure 3, the wood demand has been increasing faster than its supply. This can lead to increased wood prices.

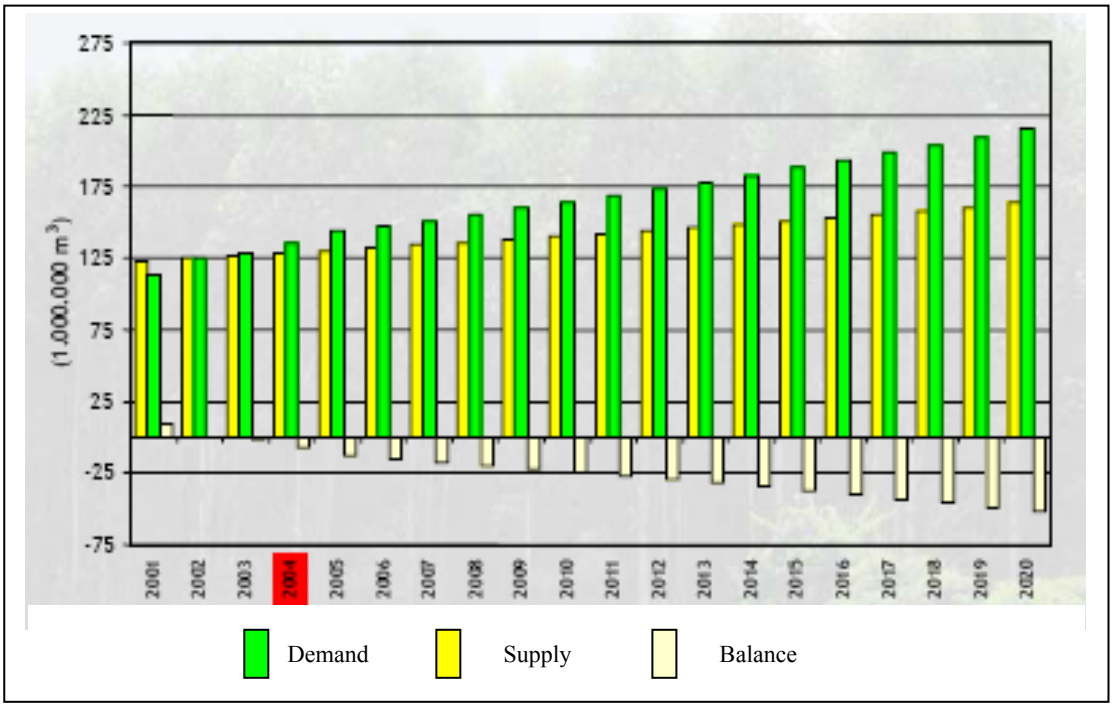

Figure 3 – The "forestry blackout" (*Apagão florestal*):
Balance between supply and demand of *pinus* and *eucalyptus* in Brazil.
Source: STCP/Aracruz (2003). Available at www.bndes.gov.br.

Skepticism about reliability of the biomass supply and its price were some of the factors limiting project development.

National policies and circumstances relevant to the baseline

There are no direct programs or regulations limiting the future use of LPG. Therefore there are no national circumstances or policies that would reduce the use of LPG in the baseline.

The use of biomass furnaces is in compliance with all applicable legal and regulatory requirements in Brazil as long as all the local safety and pollution standards are met.

Impact of CDM registration

The approval and registration of the project activity as a CDM activity, and the benefits and incentives derived from the project activity, will alleviate the identified barriers and thus enable the project activity to be undertaken for the following reasons:

- Bunge is an important industrial group in the agricultural and food markets in Brazil and worldwide. The environmental aspects of its activities have always been in evidence because of the public perception of its positive and negative impacts. The registration of this project activity in the CDM will add positive value to the company, especially considering that it also actuates in other countries, producing and selling goods.

- Bunge has operations in Annex 1 Parties. The registration of this project activity in the CDM will contribute with the commitment of company's emissions reductions targets in those countries.

- The registration of the project in the CDM may also result in financial benefits from the revenue obtained by selling CERs, what can help to reduce project costs.

B.4. Description of how the definition of the project boundary related to the baseline methodology selected is applied to the small-scale project activity:

The project boundary is limited to the physical, geographical site of the renewable energy generation. Project activity displaces fossil fuel supplied by external source to renewable biomass supplied by energy forest.

B.5. Details of the baseline and its development:

The date of completing the baseline was 29/09/2005 by Mr. Rodrigo Marcelo Leme and Ms. Melissa Sawaya Hirschheimer. Contact information:

Ecoinvest Carbon Assessoria Ltda.
Rua Padre João Manoel, 222
CEP 01411-000
São Paulo / SP
Brazil.

Ecoinvest Carbon Assessoria Ltda. is project participant listed in Annex 1 of this document.

SECTION C. Duration of the project activity / Crediting period:

C.1. Duration of the small-scale project activity:

C.1.1. Starting date of the small-scale project activity:

20/09/2003.

C.1.2. Expected operational lifetime of the small-scale project activity:

21y-0m.

C.2. Choice of crediting period and related information:

The project will use a renewable crediting period.

C.2.1. Renewable crediting period:

The project will have a 7 years crediting period, which can be renewed 2 times. In total the crediting period will be 3 x 7 years.

C.2.1.1. Starting date of the first crediting period:

20/09/2003.

C.2.1.2. Length of the first crediting period:

7y-0m.

C.2.2. Fixed crediting period:

C.2.2.1. Starting date:

Not applicable.

C.2.2.2. Length:

Not applicable.

SECTION D. Application of a monitoring methodology and plan:

D.1. Name and reference of approved monitoring methodology applied to the small-scale project activity:

Type I – Renewable energy projects / I.C. Thermal energy for the user

D.2. Justification of the choice of the methodology and why it is applicable to the small-scale project activity:

The choice of the applicable baseline calculation for the project category is justified since the project activity meets the following applicability conditions:

Table 5 – Applicability conditions

Project type	Type I- Renewable Energy Project
Project category	I.C. Thermal energy for the user
Technology/ Measure	The project activity uses fixed grating furnace technology with a generation capacity lesser than 15MW (manufacturer). The renewable energy technology (biomass for drying) that supplies user with thermal energy that displaces fossil fuel as required by Appendix B of the simplified modalities and procedures for small-scale CDM project activities.
Boundary	The project boundary is Guará plant.
Baseline	For renewable energy technologies that displace technologies using fossil fuels, the simplified baseline is the fuel consumption of the technologies that would have been used in the absence of the project activity times an emission coefficient for the fossil fuel displaced based on conservative appendix B to the SSM&P). Please refer to section E.
Leakage	Once energy generating equipment was dismantled and converted to biomass grating furnace, leakage was not considered.
Monitoring	For renewable energy technologies that displaces fossil fuels, the consumption of biomass is the only parameter that needs to be monitored.

D.3 Data to be monitored:

Monitoring plan consists of metering the amount of biomass used.

ID number *(Please use numbers to ease cross-referencing to*	Data variable	Source of data	Data unit	Measured (m), calculated (c) or estimated (e)	Recording frequency	Proportion of data to be monitored	How will the data be archived? (Electronic/ paper)	For how long is archived data to be kept?	Comment
1. BIO	Biomass consumption	Biomass purchasing receipts	stm or tonnes	M	Monthly	100%	Electronic and paper	Two years after the end of the crediting period	Purchasing receipts are cross-checked with field inspections of trucks by measuring dimensions (volume) or weighting (mass)

D.4. Qualitative explanation of how quality control (QC) and quality assurance (QA) procedures are undertaken:

The consumption of biomass is measured from the purchasing receipts issued by the biomass supplier and it is strictly controlled by Bunge through the inspection of trucks that delivers biomass to the plant. Bunge normally pays for the biomass based on volume delivered. Sometimes the biomass is purchased in mass units.

D.5. Please describe briefly the operational and management structure that the project participant(s) will implement in order to monitor emission reductions and any leakage effects generated by the project activity:

Project operator and manager is Bunge Fertilizantes. Bunge has maintenance and operations procedures, which include the monitoring of process variables, instruments calibration and quality control, in accordance with company policies, engineering best practices and ISO9001 certification. For this reason, no major changes in monitoring and QA/QC procedures will be required for the CDM project activity related variables and parameters.

Particularly for the project activity, the only monitored variable is the consumption of biomass, in volume or mass units. It is controlled by the plant through purchasing receipts and local inspection of trucks according to the following procedure:

MONITORING PROCEDURE FOR BIOMASS

1 – The only monitored variable is the amount of biomass (firewood) delivered to the plant.

2 – The biomass is brought into the site by trucks and deposited in the biomass storage area.

3 – The biomass received is measured either in apparent volume (stm – stereo cubic meters) or mass units (tonnes), depending on the biomass supplier.

4 – If the biomass supplier delivers biomass in apparent volume units (stm), Bunge measures the length, width and height of the load inside the truck, when it arrives at the site. These dimensions are multiplied to result in the stm unit. The measure is annotated in field spreadsheets and fed into an electronic control spreadsheet. Monthly, the electronic control is compared with the volume annotated in the purchase receipts.

5 - If the biomass supplier delivers biomass in mass units, tonnes, Bunge measures the mass of biomass through load cells when the trucks arrive at the site. The measure is annotated in field spreadsheets and fed into an electronic control spreadsheet. Monthly, the electronic control is compared with the mass annotated in the purchase receipts.

6 – In the case of differences between field measurement and purchase receipts, the value chosen for invoice payment shall be considered for CERs verification, as this will be the most precise one.

7 – Twice a month Bunge will measure both the apparent volume of the biomass (in stm) and its mass (in tonnes) of a selected truck, in order to determine the apparent density (D, in tonnes/stm) of the biomass and keep a historical recording of this variable. This value shall be used in order to determine the mass of the biomass received in apparent volume units.

D.6. Name of person/entity determining the monitoring methodology:

Mr. Rodrigo Marcelo Leme
Mrs. Melissa Sawaya Hirschheimer

Ecoinvest Carbon Assessoria Ltda.
Rua Padre João Manoel, 222
01411-000 São Paulo – SP
Brazil

Ecoinvest Carbon Assessoria Ltda. is project participant listed in Annex 1 of this document.

SECTION E.: Estimation of GHG emissions by sources:

E.1. Formulae used:

E.1.1 Selected formulae as provided in appendix B:

Not applicable.

E.1.2 Description of formulae when not provided in appendix B:

E.1.2.1 Describe the formulae used to estimate anthropogenic emissions by sources of GHGs due to the project activity within the project boundary:

The project activity uses renewable biomass as energy source. The net balance of CO_2 emissions from renewable biomass is considered zero because the gas is absorbed by forestry cultivation. Hence,

$$PE = 0 \quad (1)$$

E.1.2.2 Describe the formulae used to estimate leakage due to the project activity, where required, for the applicable project category in appendix B of the simplified modalities and procedures for small-scale CDM project activities

No leakage is considered as a result of the project because energy generating equipment was dismantled and converted.

$$LE = 0 \quad (2)$$

E.1.2.3 The sum of E.1.2.1 and E.1.2.2 represents the small-scale project activity emissions:

$$PE + LE = 0 \quad (3)$$

E.1.2.4 Describe the formulae used to estimate the anthropogenic emissions by sources of GHGs in the baseline using the baseline methodology for the applicable project category in appendix B of the simplified modalities and procedures for small-scale CDM project activities:

The amount of fuel that would have been used in the baseline is multiplied by the respective emission factor to calculate the baseline emissions.

$$BE = LPG \cdot EF \quad tCO_2 \quad (4)$$

Where,

- BE is the baseline emissions, in tCO_2.

- LPG is the consumption of LPG that would be required in each year of the crediting period to substitute biomass, in TJ.

- EF is the emission factor of LPG, in tCO_2/TJ.

As per AMS-I.C, LPG is determined directly from the consumption of biomass. It is assumed that the amount of LPG that would be required in each year of the crediting period to substitute biomass is equal to the amount of biomass used, in energy units:

$$LPG = BIO \cdot D \cdot LHV \quad \text{TJ} \quad (5)$$

Where,

- BIO is the amount of biomass consumed in each year of the crediting period, monitored by project proponents. Normally BIO is monitored in volume units stm (stereo cubic meters). This volume corresponds to the biomass contained in one apparent cubic meter of firewood, i.e., one cubic meter of biomass plus air space. Alternatively BIO can be monitored in mass units (tonnes). In this case, BIO doesn't need to be converted into mass units through the product with the apparent density D. If BIO is monitored in tonnes, then, equation 5 becomes: LPG=BIO.LHV [TJ], as the LHV is provided in TJ/t.

- D is the apparent density of biomass, in t/stm. The data used for estimating emissions reductions is D = 0.5 tonnes/stm, obtained at the site. During the crediting period, Bunge will measure twice a month both the apparent volume of biomass (in stm) and its mass (in tonnes) of a selected truck, in order to determine D so that a historical recording of this variable is kept. This value shall be used in order to determine the mass of the biomass received in apparent volume units.

- LHV is the lower heating value of the biomass, in TJ/t. LHV = 2,840 kcal/kg = 11,890 x 10^{-6} TJ/t. This value was obtained from the Brazilian Ministry of Mines and Energy, in the BEN 2005 (*Balanço Energético Nacional 2005* – Brazilian Energy Database).

Therefore,

$$LPG = BIO \cdot 0.5 \cdot 11{,}890 \cdot 10^{-6} = 0.005945 \cdot BIO \quad \text{TJ} \quad (6)$$

The emissions factor for LPG is calculated as:

$$EF = CEF \cdot OXID \cdot \frac{44}{12} \quad tCO_2/TJ \quad (7)$$

According to the IPCC, CEF = 17.2 tC/TJ and OXID = 0.99. Then,

$$EF = 17.2 \cdot 0.99 \cdot \frac{44}{12} = 62.43 \quad \text{tCO}_2\text{/TJ} \quad (8)$$

From (4), (6) and (8):

$$BE = 0.005945 \cdot 62.43 \cdot BIO = 0.3711 \cdot BIO \quad \text{tCO}_2 \quad (4)$$

The forecasted consumption of biomass during the crediting period and corresponding baseline emissions are presented in Table 6:

Table 6 – Forecasted consumption of biomass and baseline emissions

Years	BIO stm	BE tCO_2
2003 (starting 20 September)	12,667	4,700
2004	38,000	14,101
2005	38,000	14,101
2006	38,000	14,101
2007	38,000	14,101
2008	38,000	14,101
2009	38,000	14,101
2010 (until 19 September)	25,333	9,401
Total	266,000	98,707

E.1.2.5 Difference between E.1.2.4 and E.1.2.3 represents the emission reductions due to the project activity during a given period:

Table 7 – Emissions reductions

Years	ER tCO_2
2003 (starting 20 September)	4,700
2004	14,101
2005	14,101
2006	14,101
2007	14,101
2008	14,101
2009	14,101
2010 (until 19 September)	9,401
Total	98,707

E.2 Table providing values obtained when applying formulae above:

Table 8 – PE, BE, LE and ER

Years	PE tCO_2	LE tCO_2	BE tCO_2	ER tCO_2
2003 (starting 20 September)	0	0	4,700	4,700
2004	0	0	14,101	14,101
2005	0	0	14,101	14,101
2006	0	0	14,101	14,101
2007	0	0	14,101	14,101
2008	0	0	14,101	14,101
2009	0	0	14,101	14,101
2010 (until 19 September)	0	0	9,401	9,401
Total	0	0	98,707	98,707

SECTION F.: Environmental impacts:

F.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:

Guará Project complies with the environmental regulations of the country. The plant has the required environmental license issued by the State environmental agency, CETESB. The scope of the license includes the furnaces. The license is currently being renewed and it is available under request.

This project activity presents no major environmental impacts and does not request an Environmental Impact Assessment.

The ash generated by combustion of biomass is used to enrich the fertilizers produced and the flue gases, before going to the atmosphere, are directed to cyclones and send to the gas washers for eliminating particulate matter and other undesired emissions, in compliance with Brazilian environmental regulations.

For biomass projects that consumes less than 100,000 m^3 of wood yearly, which is the case of Guará Project, IBAMA - Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute of Environment and Renewable Natural Resources) demands the payment of forestry reposition tax. Guará is updated with this tax and the receipts to Associação de Recursos Florestais Vale do Rio Grande (Forestry Resources Vale do Rio Grande Association) are available under request.

Guará plant is certified with ISO 9001:2000, another evidence that all activities of the plant are in line with applicable requirements, including legislation, ISO and Bunge standards.

SECTION G. Stakeholders' comments:

G.1. Brief description of how comments by local stakeholders have been invited and compiled:

Public discussion with local stakeholders is compulsory for obtaining the environmental operating licenses. The legislation also requests the announcement of the issuance of the license (LO) in the local state official newspaper (*Diário Oficial do Estado de São Paulo*) and in the regional newspaper to make the process public and allow public information and opinion.

Project proponents invited local stakeholders for comments about the project activity. Several organizations and entities were invited for comments on the project:

- Guará City Hall
- Guará City Council
- Guará Environmental Department
- CETESB – State Environmental Agency
- São Paulo State Public Attorney
- FBOMS – National NGOs representative
- Associação de Recuperação Florestal Vale do Rio Grande – Local NGO
- Associação Comercial Empresarial de Guará – Local NGO

G.2. Summary of the comments received:

No comment has been received so far.

G.3. Report on how due account was taken of any comments received:

No comment has been received so far.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE PROJECT ACTIVITY

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Annex 2

INFORMATION REGARDING PUBLIC FUNDING

No public funding is used in the project activity.

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