

## ANNEX R – PASSPORT TEMPLATE

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### Annex 1 ODA declarations

## SECTION A. Project Title

Title: Production of thermal energy from renewable biomass at Melhoramentos Papeis Ltda

Date: 17-10-2013

Version no.: 2.7

## SECTION B. Project description

The Project Activity will produce energy (heat) from clean energy sources (biomass) to meet present and future heat demands of Melhoramentos Papeis Ltda's (henceforth referred to as the "Project Proponent") Pulp and paper mill located in Caeiras, Brazil. The project will improve socio-economic conditions directly for the workers of the mill and indirectly throughout the whole region. The biomass boiler which will produce the heat is a Steam Master JPI 40 BIO water-tube boiler model, with a maximum steam producing capacity of 40 ton/hour at 20 bar with a rated capacity of 26.2 MW thermal.

The boiler will have a particular design in order to be able to burn a larger variety of internally produced residues including wood yard waste bark and paper bio-sludge, and is the first boiler of that kind built by the supplier. It is also one of the few boilers in Brazil. The supplier has developed a tailor-made follow-up program for the boiler for the initial period to ensure that the operations of the boiler are working as agreed.

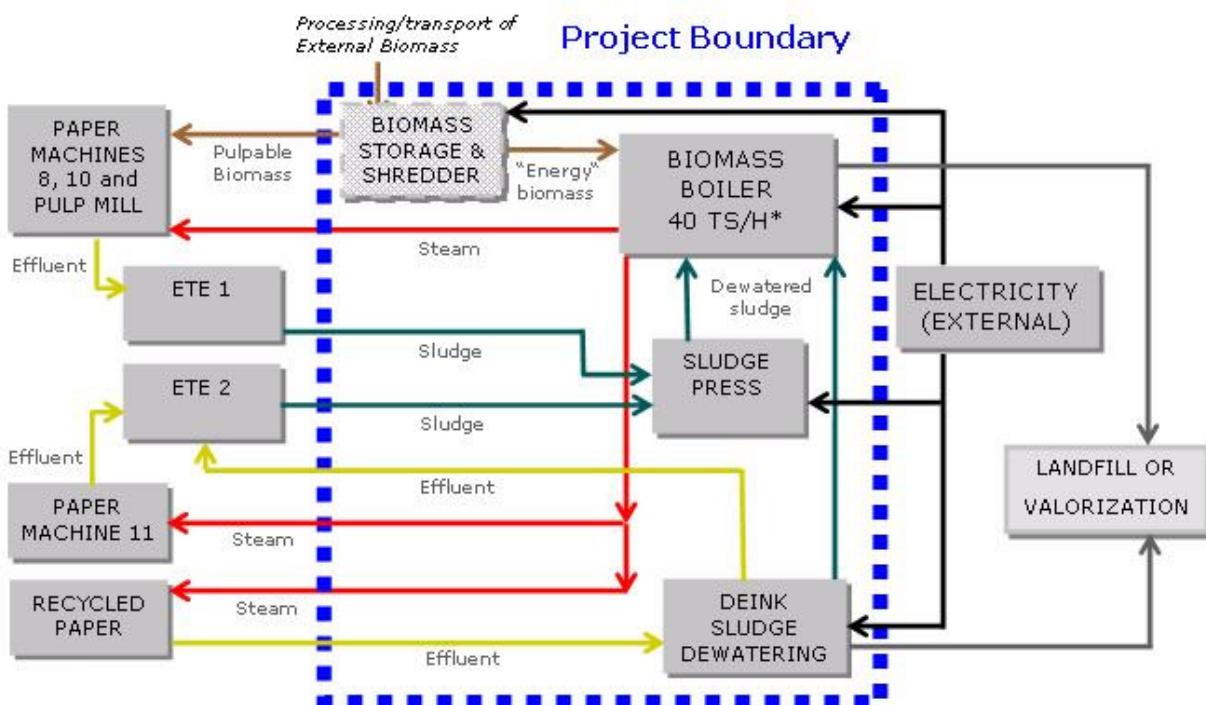


The mill consumes only electricity from the National Grid and will continue to do so in the Project Activity. The project activity will use renewable biomass from the following sources:

- Biomass residues and by-products from the forestry and industry sector
- Biomass residues from the mill's own production process



Exemples of used residues (from left to right) : bark, wood chips and bio-sludge



The specific objectives of the Project Activity is:

- Generation of clean energy from renewable sources in replacement of fossil fuel energy generation, thus reducing greenhouse gas emissions (CO<sub>2</sub>)
- Valorization of regional biomass excess (avoiding emissions from natural decay, uncontrolled burning of these residues and reducing the risk of forest fires).
- Valorization of internally produced residues for energy generation and other uses, such as the use of ash as fertilizer in agriculture
- Develop the forestry sector by:
  - Increase the incentives for local forest companies to manage their forests in a sustainable way
  - Providing training opportunities and financial mechanisms to suppliers and forest owners to develop their activities, providing them with a way to generate local income and improve their technical competence

- The creation of direct and indirect employment along the whole biomass chain, creating local revenues
- The promotion of technology transfer and technical knowledge development by using special developed boiler technology and filtration system
- In the medium/long term, promote the health of workers and inhabitants of the region by reducing the numbers of fires/uncontrolled burning and therefore the amount of pollution.
- Promote primary education in the region and increase the local awareness of climate change issues through dedicated projects

Moreover the project intends to:

- Reduce the pollution and GHG emissions associated with the extraction, refining and transport of natural gas.
- Establish this project as a model project in Brazil for the reuse of difficult internal residues for energy generation

The Project is helping the Host Country to fulfill its sustainable development guidelines by:

- The promotion of renewable energy sources, decreasing global GHG emissions
- The promotion and use of innovative clean and efficient technologies
- Optimization of the management and use of renewable resources in the region
- Generation of local income and promotion of employment in local communities

#### **Estimated project start date:**

The biomass boiler is operational as of 23-09-2011

### **SECTION C. Proof of project eligibility**

#### **C.1. Scale of the Project**

*Please tick where applicable:*

Project Type	Large	Small
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>		x
		<input type="checkbox"/>		<input type="checkbox"/>



## C.2. Host Country

Brazil (state of São Paulo)

## C.3. Project Type

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	x	<input type="checkbox"/>
Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input type="checkbox"/>	x
Does your project activity classify as waste handling and disposal project?	<input type="checkbox"/>	x

*Please justify the eligibility of your project activity:*

**Scale of project activity**

This project is a VER Small scale Renewable energy project, with capacity < 15 MWe.

**Project Activity Type**

Renewable Energy Supply

**Greenhouse Gases**

The project aims to reduce Carbon Dioxide (CO2) emissions

**Official Development Assistance**

The Project will not receive any funds from Official Development Assistance Entities.

**Project timeframe**

The project was initiated on 23<sup>rd</sup> of September 2011 and will run for 10 years, without possibility of renewal.

The Project Activity is a small-scale activity which complies with the following criteria:

- It displaces fossil fuel use by installing of new renewable energy technologies (a biomass-based thermal energy generation unit) that supply users with thermal energy
- It has an aggregate capacity well within the limit of 45 MW thermal
- It will remain under the limit of small scale project activity type during every year of its crediting period.

Pre Announcement	Yes	No
Was your project previously announced?	<input type="checkbox"/>	x
Explain your statement on pre announcement		
This project has not been previously announced.		

**C.4. Greenhouse gas**

Greenhouse Gas	
Carbon dioxide	x

Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

#### C.5. Project Registration Type

Project Registration Type	
Retroactive	<input type="checkbox"/>

Pre-feasibility assessment	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
	X	<input type="checkbox"/>	<input type="checkbox"/>

If Retroactive, please indicate Start Date of project activity dd/mm/yyyy: 23-09-2011

#### SECTION D. Unique project identification

##### D.1. GPS-coordinates of project location

	Coordinates
Latitude	23° 22' 06" South
Longitude	46° 45' 47" West

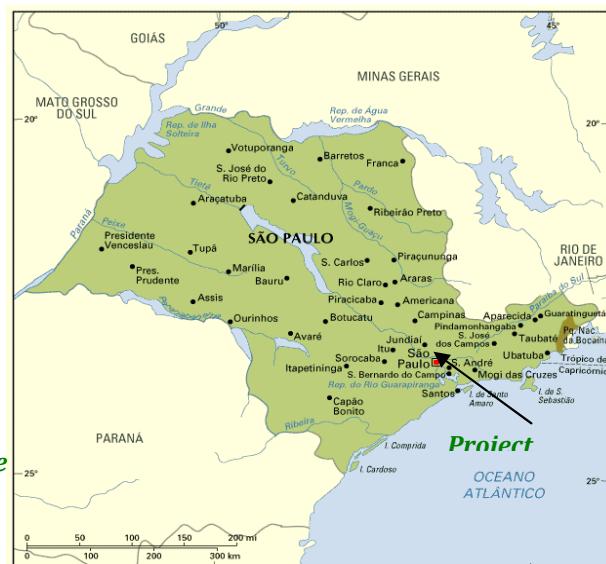


Explain given coordinates

The Project Activity is located inside the pulp and paper mill Melhoramentos Papeis, in the municipality of Caeiras, São Paulo State, Brazil. The municipality lies about 40 km from the State Capital city São Paulo by interstate road.

## D.2. Map

Map of Brazil



The Biomass boiler area and storage site are located inside Melhoramentos Papeis mill area, at the location indicated in the below picture.



The exact address of the Melhoramentos Papeis mill is:  
 Rodovia Presidente Tancredo de Almeida Neves, Km 34  
 Caieiras – SP - Brazil

#### **SECTION E. Outcome stakeholder consultation process**

Below follows a list of people invited to the LSC meeting:

Category code	Organisation (if relevant)	Name of invitee	Way of invitation	Date of invitation	Confirmation received? Y/N
C	Interministerial Commission on Global Climate Change (DNA)	Sanderson Leitão	e-mail/ mail	27-03-2012 / 28-03-2012	No
C	Interministerial Commission on Global Climate Change (DNA)	Sonia Bittencourt	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	State deputy	Juscelino Cardoso de Sá (PSDB)	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	CETESB (São Paulo State)	Marcelo	e-mail/ mail	27-03-2012 /	No

	Environment Agency)	Minelli		28-03-2012	
B	CETESB (São Paulo State Environment Agency)	José Roberto Pinheiro Serrano	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Brazilian Environmental Agency	Bruno Covas	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Bonfílio Alves Ferreira	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
B	Municipality	Roberto Hamamoto	mail	28-03-2012	<b>Yes</b>
B	Municipality	Gerson Moreira Romero	mail	28-03-2012	<b>Yes</b>
B	Municipality	Valdir Antonio Martins	mail	28-03-2012	<b>Yes</b>
B	Municipality	Sara Beltrame Hamamoto	mail	28-03-2012	<b>Yes</b>
B	Municipality	Idir de Souza	Mail	28-03-2012	<b>Yes</b>
B	Municipality	Adriano C. da Silveira Zambelli	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Agnaldo José Correa	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Álvaro Berti	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Carlos Augusto de Castro	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Edgley Jone Maximo Leandro	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Ideir Hamamoto	e-mail/ mail	27-03-2012 / 28-03-2012	No

B	Municipality	Jailma Barbosa Silva	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
B	Municipality	Josefa Maria Marques	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Municipality	Paulo Roberto Ózio	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
B	Municipality	Pedro Siqueira Junior	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	E E Otto Weiszflog	Maria Cristina Machado Barboza Galhardo	mail	28-03-2012	No
B	Escola Estadual Otto Weiszflog	Irene Soares da Silva	mail	28-03-2012	No
B	Escola Estadual Walther Weiszflog	Ana Maria Vapalá	mail	28-03-2012	No
B	Escola Estadual Walther Weiszflog	Yesone	e-mail	27-03-2012	No
B	Escola Estadual Walther Weiszflog	Maria José	e-mail	27-03-2012	No
B	Escola Municipal Joaquim Osório	Carla Francine Gabriel da Silva	mail	28-03-2012	No
A	Moradores Melhoramentos Florestal	Florisvaldo Pinheiro de Souza	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	Moradores Melhoramentos Florestal	Francisco Alves Filho	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	Moradores Melhoramentos Florestal	Edson Barbosa Silva	mail	28-03-2012	No
A	Residencial Nova Caieiras	Marcelo Ricciarelli	mail	28-03-2012	<b>Yes</b>

A	Residencial Nova Caeiras	José Andrade	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	Melhoramentos Florestal	Denivaldo Toledo Camargo	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	MD Papéis	Lino D'Piero	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Instituto Pesquisa e Ecologia Humana	Anésio Ferreira de Campos	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	Instituto Chão Verde	Rosemari Aparecida Neidenbach	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Instituto Chão Verde	Marcos Aparecido de Oliveira	e-mail	27-03-2012	No
A	Instituto Chão Verde	Genival Nolasco de Pontes	e-mail	27-03-2012	<b>Yes</b>
A	Instituto Chão Verde	Juvenal Rafael de Pontes	e-mail	27-03-2012	<b>Yes</b>
A	Instituto Chão Verde	Antonio Gonçalves	e-mail	27-03-2012	<b>Yes</b>
A	Instituto Chão Verde	Robson José Premoli Pacheco	e-mail	27-03-2012	<b>Yes</b>
A	Instituto Chão Verde	Marcelo Ribeiro	e-mail	27-03-2012	<b>Yes</b>
D	Instituto Ferrovias e Preservação do Patrimônio Cultural	Paulo Rodrigues dos Santos	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
D	Instituto Ferrovias e Preservação do Patrimônio Cultural	Nelson Aparecido Bueno de Camargo	e-mail/ mail	27-03-2012 / 28-03-2012	No
D	Associação Cultural e Ecológica Acorda Mairipá	Mário Cesar Lopes do Nascimento	e-mail/ mail	27-03-2012 / 28-03-2012	No
F	GreenPeace	Bruna Buchman	e-mail/ mail	27-03-2012 / 28-03-2012	No

F	WWF	Maristela Pessoa	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	Hospital e Maternidade Francisca Vitalina Ventura (Municipal)	Dr. Miriam Ferreira Neto	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	BNDES	André Biazus	e-mail/ mail	27-03-2012 / 28-03-2012	No
B	BNDES	Alexandre Villar	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Setenta Ind. e Com. De Madeiras Ltda.	Sr. Domingos Soares	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	Souza Madeiras	Ricardo de Souza	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	AVC (Lixotal)	Alexandre	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Made Vila	José Augusto Audi	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Adilson Jordanésia (Marte Paletes)	Sr. Luiz Carlos	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Morro Azul	Sérgio Carlos Perobeli	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	CDM	Sérgio Torsani	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	CDM	Vanilson Lucena	e-mail	27-03-2012	<b>Yes</b>
A	Wood Comercial / Representante Madipê e Jatobá	Paulo Scaloni	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>



The Gold Standard®

Premium quality carbon credits

A	José Rogério	Luiz Carlos Oliveira	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Cabrerizo (Salmeron)	Ricardo Salmeron	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	Empresa Bras. Combio	Nilton Leite Almeida Branco	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
E	Gold Standard	Ivan Hernandez	e-mail/ mail	27-03-2012 / 28-03-2012	No
A	-	Alberto F. do Nascimento	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>
A	-	Luiz A. Vale Júnior	e-mail/ mail	27-03-2012 / 28-03-2012	<b>Yes</b>

The aim of the selection of the invitees was to invite a, as broad as possible, mix of people relevant to the project. As can be seen above both people from local, regional and national and supranational authorities have been invited (municipality, state deputies, CETESB, Brazilian Environmental Agency, local DNA etc). Moreover, representatives of local NGOs as well as international ones (Greenpeace, WWF) were invited alongside with Myclimate's Gold Standard representative. Other parties relevant for the project include representatives for the Brazilian Development Bank (BNDES), logs/wood residues transport companies (e.g. Souza Madeiras), wood recycling companies (e.g. AVC), saw mills (e.g. José Rogério), local schools (State School Walther Weiszflog) and also representatives from the Communities living close to the project site (e.g. Residencial Nova Caieiras). The local hospital was also invited as the project will discuss health concerns regarding workers and people living close to the project site.

The largest numbers of people invited come from the public authorities, from the ONGs and from the forest owners/suppliers. It is important to have as a broad consensus on the project as soon as possible and to make authorities aware of the project on an early stage. By inviting them they have a possibility to express their concerns at a very early stage and thus make the necessary adjustments as soon as possible. The project will have a significant impact on activities along the whole biomass supply chain, which is why forest owners/suppliers were invited so that they could give their opinion at the stake holder meeting. Local and international ONG's were invited in order to give their opinion and suggestions for improvements on the social and environmental development of the project. Also the local schools that most probably are to receive support from the project were invited. The Brazilian Development Bank was also invited as this bank might be involved in providing guarantees and/or financing for the project. The local DNA was also invited as well as Myclimate's Gold Standard representative for the region because it is important they are involved at

an early stage.

Several invitation methods were used in order to attract the broadest range of stakeholders possible in terms of gender, age, culture and ethnicity.

Personal Invitation Letter: A personal invitation letter was sent out to most participants who had a postal address (most of them). Some of these also received the invitation per e-mail.

Email: E-mails were sent to all invitees with an e-mail address. The content of the email invitation and the personal invitation letter was the same.

Phone calls: When there was a telephone number available (most cases) the invitations made by e-mail/letter were followed by one or several telephone calls trying to confirm their presence at the stake holder meeting.

Leaflets: Some leaflets were printed and distributed to personnel of the mill.

Radio and newspapers: An ad was circulated in one local and one regional newspaper and the same ad was run in the local radio station. In the local radio station the ad was run 3 times daily, from the 30<sup>th</sup> of March to the 11<sup>th</sup> of April 2012. The ad was published in the local newspaper on the 30<sup>th</sup> of March and the 5<sup>th</sup> of April and in the regional newspaper on the 5<sup>th</sup>, 9<sup>th</sup> and 11<sup>th</sup> of April 2012.

## i. Text of individual invitations

**De:** Consulta Pública  
**Enviada em:** terça-feira, 27 de março de 2012 12:41  
**Para:** 'madsetenta@uol.com.br'  
**Assunto:** CONVITE CONSULTA PÚBLICA PROJETO MDL - MELHORAMENTOS PAPÉIS LTDA - 12/04/12

Prezado Sr. Domingos Soares,

**Convite à Consulta Pública:**

A Melhoramentos Papéis Ltda. com o apoio da Fundação MyClimate tem o prazer de convidá-lo à consulta pública do projeto de Redução Voluntária de Emissões Gold Standard nomeado "Geração de Energia Térmica Usando Biomassa Renovável", um projeto que será financiado através de mecanismos de financiamento do mercado de carbono.

Segue anexo detalhes do evento.

Para mais informações e/ou confirmar a sua presença: telefone (11) 4441-7403 ou pelo e-mail [consulta\\_publica@cmcp.com.br](mailto:consulta_publica@cmcp.com.br).

Att.,



[www.cmcp.com.br](http://www.cmcp.com.br)  
Fernanda Caroline Santini  
Fone: 55 11 4441-7403



Melhoramentos  
PAPEIS

Rod. Presidente Tancredo de Almeida Neves, km34 – Centro – Caleiras, CEP 07706-000  
Fone: 4441-7403 Fax: 4441-7202

Caleiras, 26 de Março de 2012

Para: Bonfilio Alves Ferreira  
Secretário de Meio Ambiente de Caleiras

**Ref.: Convite a Consulta Pública**

Estimado Sr. Bonfilio Alves Ferreira,

Através deste, temos o prazer de convidá-lo para participar da **Consulta Pública** do projeto de Redução Voluntária de Emissões Gold Standard "Geração de Energia Térmica Usando Biomassa Renovável", desenvolvido pela empresa Melhoramentos Papéis Ltda., no dia 12 de abril de 2012 às 9:00 horas.

O evento será realizado nas **instalações da Chácara Romero**, localizada na:  
Rod. Pres. Tancredo de Almeida Neves, nº 2011, Caleiras, SP.

O objetivo deste projeto é a valorização de biomassa renovável, biomassa de resíduos e lodos industriais da fábrica de papel tissue, em substituição das caldeiras de gás natural para a produção de vapor para os processos da fábrica, gerando desta forma energia sustentável, limpa e renovável. O projeto, se for aprovado, beneficiará a comunidade local, aumentando o nível de educação, os rendimentos e o padrão de vida local.

A agenda proposta para o evento é a seguinte:

Horário	Atividade
9:00 hrs	Recepção e credenciamento dos participantes
9:15 hrs	Apresentação MyClimate, Explicação MDL e Gold Standard
9:45 hrs	Explicação do projeto, componentes sócio-econômicos, técnicos, ambientais e sociais
10:30 hrs	Perguntas e respostas
10:45 hrs	Café
11:00 hrs	Explicação da matriz, danos potenciais, monitoramento e variáveis propostas
11:40 hrs	Perguntas e respostas
12:00 hrs	Preenchimento da matriz pelos participantes
12:30 hrs	Consolidação da matriz, apresentação e comentários finais
13:00 hrs	Preenchimento do formulário de avaliação da consulta pública
13:15 hrs	Encerramento
13:30 hrs	Coquetel



Melhoramentos  
PAPÉIS

Rod. Presidente Tancredo de Almeida Neves, km34 – Centro – Caleiras, CEP 07700-000  
Fone: 4441-7403 Fax: 4441-7202

Se por qualquer motivo você não possa participar, pedimos por favor que nos envie  
seus comentários sobre o projeto via e-mail ou por correio tradicional para:

Ronald Cordero  
Gerente-Diretor Planta BCTMP - Melhoramentos Papéis Ltda.  
Rod. Pres. Tancredo de Almeida Neves, km 34 – Centro  
Caleiras, SP – CEP: 07700-000  
[consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br)

Também nos permitimos enviar em anexo à presente carta uma breve descrição do  
projeto destacando os pontos mais relevantes do mesmo.

Solicitamos a confirmação de presença pelo telefone: (11) 4441-7403 ou pelo e-mail:  
[consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br).

Agradecemos muito sua atenção.

Atenciosamente,



Ronald Cordero  
Gerente-Diretor Planta BCTMP  
Melhoramentos Papéis Ltda.



Rod. Presidente Tancredo de Almeida Neves, km34 – Centro – Caleiras, CEP 67700-000  
Fone: 4441-7403 Fax: 4441-7202

## GERAÇÃO DE ENERGIA TÉRMICA USANDO BIOMASSA RENOVÁVEL

Melhoramentos Papéis Ltda.

### *Descrição do projeto:*

O objetivo deste projeto é a geração de energia térmica (vapor) utilizando como combustível biomassa renovável, biomassa de resíduos e lodos industriais da fábrica de papel tissue, em substituição das caldeiras de gás natural. O investimento permite utilizar passivos ambientais atuais como: casca de madeira de eucalíptio e lodo da estação de tratamento de efluentes, visando a redução das atuais emissões em aterros e também as emissões de gases de efeito de estufa pela substituição da caldeira de gás natural pela nova caldeira de biomassa. O projeto será financiado através de mecanismos de financiamento do mercado de carbono.

### *Benefícios econômicos, ambientais e sociais, caso o projeto MDL Gold Standard for aprovado:*

- \* Apoio as escolas locais na educação de assuntos ambientais e de sustentabilidade e visitas monitoradas.
- \* Investimento no desenvolvimento e manutenção de uma biblioteca virtual.
- \* Desenvolvimento de programas de transferência tecnológica junto com pequenos proprietários florestais no aproveitamento de biomassa de resíduos de colheita florestal.
- \* Desenvolvimento de programas de cooperação empresas-universidades-utilizadores finais para o desenvolvimento de alternativas econômica e tecnicamente viáveis para a utilização das cinzas industriais e outros resíduos do processo produtivo da fabricação de papel.
- \* Instalação de um centro de informação sobre mudanças climáticas.

Desta forma, pretende-se incentivar a educação e informação sobre as mudanças climáticas, aumentar a reutilização de biomassa florestal, melhorando os rendimentos dos pequenos proprietários florestais e reduzindo a propensão a incêndios nas florestas, e buscar soluções ambientais para os resíduos produzidos.

### *No geral o projeto visa incentivar o país anfitrião (Brasil) no cumprimento das diretrizes de desenvolvimento sustentável, e em particular:*

- \* Redução das emissões de gases de efeito de estufa através da utilização de energias renováveis.
- \* Utilização de tecnologias inovadoras e limpas, promovendo-as no país.
- \* Otimização da gestão e do uso de recursos renováveis na região.
- \* Geração de rendimentos locais e promoção de emprego nas comunidades locais.
- \* Fomento da educação e sensibilização das comunidades locais sobre os efeitos das mudanças climáticas.

## English version of Invitation Letter:

Ref: Invitation to Public Consultation

Dear xxx,

Through this letter, we are pleased to invite you to attend the Public Consultation for the Voluntary Gold Standard Emissions Reduction Project "Thermal Power Generation Using Renewable Biomass", developed by Melhoramentos Papeis. This consultation will be held on April 12, 2012 at 9:00 am.

The event will take place at the premises of the estate Romero, located at Rod Pres. Tancredo de Almeida Neves, No. 2011, Caieiras, SP.

The objective of this project is the recovery and use of renewable biomass, biomass waste and industrial sludge from the pulp and paper mill as fuel to feed a biomass boiler which replaces the use of natural gas boilers to produce steam for the plant's processes. Thus, this project generates sustainable, clean and renewable renewable energy. The project will benefit the local community by increasing the level of education, income and standard of living place.

The proposed agenda for the event is as follows:

Time	Activity
9:00 am	Welcome and accreditation of participants
9:15 hrs	Presentation of myclimate, Explanation CDM and Gold Standard
9:45 hrs	Explanation of the socio-economic, technical, and project components
10:30 am	Questions and Answers
10:45 hrs	Coffee
11:00 hrs	Explanation of Sustainability matrix, potential damages, and monitoring
11:40 hrs	Questions and answers
12:00 hrs	Participants fill in Sustainability matrix
12:30 hrs	Consolidation of Sustainability matrix, presentation and closing remarks
13:00 hrs	Completion of evaluation form of public consultation by participants
13:15 hrs	Closing
13:30 hrs	Cocktail

If for any reason you cannot attend, please send us your comments about the project via e-mail or by mail to:

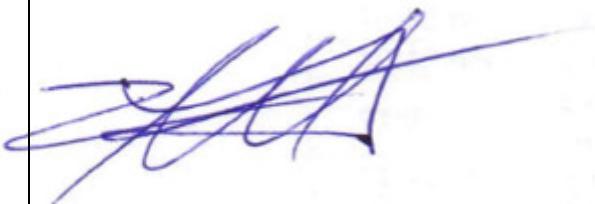
Ronald Cordero  
Plant Manager-Director BCTMP - Improvements Roles Ltda.  
Rod Pres. Tancredo de Almeida Neves, km 34 - Center  
Caieiras, SP - CEP: 07700-000  
[consulta\\_publica@cmpe.com.br](mailto:consulta_publica@cmpe.com.br)

Also attached to this letter is a brief description of the project highlighting its most relevant points.

We require confirmation of attendance by phone: (11) 4441-7403 or by email:  
[consulta\\_publica@cmpe.com.br](mailto:consulta_publica@cmpe.com.br).

Thanks so much for your attention.

Sincerely,



Ronald Cordero  
Gerente-Diretor Planta BCTMP  
Melhoramentos Papéis Ltda.

### **THERMAL POWER GENERATION USING RENEWABLE BIOMASS** **Melhoramentos Papéis**

#### **Project description:**

The objective of this project is the generation of thermal energy (steam) for the paper mill with renewable biomass, biomass waste and industrial sludge from the same mill, to replace natural gas boilers. The investment allows the use of biomass residues that are usually left to decompose such as the bark of eucalyptus trees and sludge from the wastewater treatment plant at the mill. Also, by replacing the natural gas boiler with the new biomass boiler, this also allows for the reduction of CO2 emissions. The project will be financed through funding mechanisms of the carbon market.

Economic, environmental and social benefits, if the project is approved CDM Gold Standard:

- \* Support local schools in the education of environmental issues and sustainability, and by allowing monitored visits at the plant.
- \* Investment in the development and maintenance of a virtual library.
- \* Development of technology transfer programs with small forest owners in the use of biomass waste from forest harvesting.
- \* Development of cooperation programs with universities, businesses and end users to develop economically and technically viable alternatives for the use of ash and other industrial wastes from the pulp and paper production process.
- \* Installation of an information center on climate change.

Thus, we want to encourage the education and transfer of knowledge on climate changes, increase the reuse of forest biomass, improve the incomes of small forest owners and reduce their propensity to forest fires, and seek solutions to the environmental waste produced.

Overall the project aims to encourage the host country (Brazil) to comply with the guidelines of sustainable development, and in particular with:

- \* Reducing emissions of greenhouse gases through the use of renewable energy.
- \* Use and promotion of innovative and clean technologies.
- \* Optimization of the management and use of renewable energy resources in the region.
- \* Generation of local income and employment promotion in local communities.
- \* Promotion of education and awareness raising amongst local communities regarding the effects of climate change.

## ii. Text of public invitations

**1. Below is an example of the ads that were published in the local newspapers (“Regional News” and “O Estado de São Paulo”) and the script of the announcement in the local radio channel (“Onda Fm”):**



**CLASSNEWS**

30 de março de 2012

REGIONAL NEWS

vagas@campfrango.com.br a/c Felipe.

Internet: [www.wdt.com.br/seloverde](http://www.wdt.com.br/seloverde)

**ASTRA ADMITE:**

- PROMOTOR DE VENDAS
- Com carteira de habilitação B e disponibilidade para viagens.
- ESTAGIÁRIO(A)
- EM ENGENHARIA
- 1/2 OFICIAL FERRAMENTEIRO
- Com formação em ferramentaria, usinagem ou mecânica e experiência na função.
- AJUDANTE DE COZINHA
- FAXINEIRO(A)

REGULADOR DE MÁQUINAS

- Cursando Técnico em Plástico ou com experiência na função.

MOTORISTA

- Com carteira de habilitação C ou D.

LAVADOR DE AUTOS

AJUDANTE DE PRODUÇÃO

- A partir de 16 anos.

Os interessados deverão enviar currículo para:  
 E-mail: [vagas@astra.com.br](mailto:vagas@astra.com.br), ou para a endereço:  
 Rua Professor José Leme do Prado, 85 - Jd. Primavera  
 Jundiaí/SP CEP: 13209-690  
 Fones: (11) 4583-7767/4583-7768

**CONVITE À CONSULTA PÚBLICA**

Melhoramentos Papéis Ltda. convida à consulta pública do projeto de Redução Voluntária da Emissões Gold Standard nomeado “Geração de Energia Térmica Usando Biomassa Renovável”, um projeto que será financiado através de mecanismos de financiamento do mercado de carbono.

A Melhoramentos Papéis Ltda. com o apoio da Fundação MyClimate tem o prazer de convidar à todos à consulta pública que será realizada no dia 12 de Abril de 2012 às 9:00 horas na Chácara Romero, Rod. Pres. Tancredo de Almeida Neves, 2011, Caliniras, SP.

Para mais informações a/bu confirmar a sua presença:  
 telefone (11) 4441-7403 ou pelo e-mail:  
[consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br)

**Ambulância**  
**Carro de Apoio**  
**Departamento de Apoio**  
**Assistência Funerária**  
**Ampla Rede de Descontos**

**FRANÇA DA ROCHA**  
 Rua Cox. Angélio Neto, 197  
 Tel. 4449-2128

**CARREIRA**  
 Av. Prof. Carvalho Pinto, 16  
 Tel. 4445-2287

**PIZZARIA LA BONNA PIZZA**  
 \* Pizzas tradicionais e diferentes  
 \* Salsas e molhos variados  
 \* Saladas e hambúrgueres  
 \* Delivery  
 \* 4605-2000  
 Av. Prof. Carvalho Pinto, nº 123 - Centro - Ca

## RÁDIO SCRIPT (translated to English)

“Melhoramentos Papéis Ltda. Invites you to the local stakeholder consultation of the Gold Standard Voluntary Emission Reduction Project “Thermal Energy Generation from renewable biomass”, a project which will be financed through carbon finance mechanisms of the carbon market.

With the support of the Foundation MyClimate, Melhoramentos Papéis Ltda. have the honor to invite

you to the Local Stake Holder Consultation which will be held on the 12th of April 2012, at 9:00 p.m., at Chácara Romero, Rod. Pres. Tancredo de Almeida Neves, nº 2011.

For more information or to confirm your presence phone (011) 4441-7403 or e-mail [consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br)."

**2. A leaflet was made and was distributed by e-mail to all employees of the company Melhoramentos Papeis, to get in touch with workers people representing the local communities. It was also distributed in paper form during the LSC, see below:**



The Gold Standard®

Premium quality carbon credits



Temos o prazer em convidar à:

**CONSULTA PÚBLICA**

do projeto

**GERAÇÃO DE ENERGIA TÉRMICA USANDO BIOMASSA RENOVÁVEL**  
**Melhoramentos Papéis Ltda.**

***Objetivo do projeto:***

O objetivo deste projeto é a valorização de biomassa renovável, biomassa de resíduos e lodos industriais da fábrica de papel tissue, em substituição das caldeiras de gás natural para a produção de vapor para os processos da fábrica, gerando desta forma energia sustentável, limpa e renovável. O projeto, se for aprovado, beneficiará a comunidade local, aumentando o nível de educação, os rendimentos e o padrão de vida local.

***Benefícios econômicos, ambientais e sociais, caso o projeto MDL Gold Standard for aprovado:***

Pretende-se incentivar a educação e informação sobre as mudanças climáticas, aumentar a reutilização de biomassa florestal, melhorando os rendimentos dos pequenos proprietários florestais e reduzindo a propensão a incêndios nas florestas, e buscar soluções ambientais para os resíduos produzidos.

***No geral o projeto visa incentivar o país anfitrião (Brasil) no cumprimento das diretrizes de desenvolvimento sustentável, e em particular:***

- \* Redução das emissões de gases de efeito de estufa através da utilização de energias renováveis.
- \* Utilização de tecnologias inovadoras e limpas, promovendo-as no país.
- \* Otimização da gestão e do uso de recursos renováveis na região.
- \* Geração de rendimentos locais e promoção de emprego nas comunidades locais.
- \* Fomento da educação e sensibilização das comunidades locais sobre os efeitos das mudanças climáticas.

O evento será realizado no dia **12 de abril de 2012** às 9:00 hrs na Chácara Romero, localizada na Rod. Pres. Tancredo de Almeida Neves, nº 2011.

Solicitamos a confirmação de presença pelo telefone: (11) 4441-7403 ou pelo e-mail: [consulta\\_publica@cmpe.com.br](mailto:consulta_publica@cmpe.com.br).



### iii. List of participants in physical meeting

Participants list					
Date and time: 12 <sup>th</sup> April 2012, 9.15					
Location: Chácara Romero, Rod. Pres. Tancredo de Almeida Neves, nº 2011					
Category Code	Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details
	Adauto Ferreira Mota	M		Melhoramentos Papéis	<a href="mailto:afmota@cmpc.com.br">afmota@cmpc.com.br</a>
	Alan Duarte	M		IPEH	<a href="mailto:dralan@uol.com.br">dralan@uol.com.br</a>
	Alexandre Vieira Cardoso	M		Grupo lixotal	<a href="mailto:alexandre@grupolixotal.com.br">alexandre@grupolixotal.com.br</a>
	Alonso Bonfim	M		Workers Union	<a href="mailto:stecaieiras@terra.com.br">stecaieiras@terra.com.br</a>
	Bonílio Alves Ferreira	M		Municipality of Caeiras	<a href="mailto:bonfilio@uol.com.br">bonfilio@uol.com.br</a>
	Bruna Carolina Toledo	F		Melhoramentos Papéis	<a href="mailto:bctoledo@cmpc.com.br">bctoledo@cmpc.com.br</a>
	Cláudio A. Jr	M		Melhoramentos Papéis	<a href="mailto:cjunior@cmpc.com.br">cjunior@cmpc.com.br</a>
	Domingos Soares	M		Setenta Ind. e Com. De Madeiras Ltda.	<a href="mailto:madsetenta@uol.com.br">madsetenta@uol.com.br</a>
	Edson Barbosa Silva	M		Morador Melhoramentos Florestal	<a href="mailto:ebsilva@melhoramentos.com.br">ebsilva@melhoramentos.com.br</a>
	Elisete Souza	F		Grupo lixotal	<a href="mailto:elisete@grupolixotal.com.br">elisete@grupolixotal.com.br</a>
	Fernanda Santini	F		Melhoramentos Papeis	<a href="mailto:fcsantini@cmpc.com.br">fcsantini@cmpc.com.br</a>
	Florisvaldo Pinheiro de Souza	M		Morador Melhoramentos Florestal	<a href="mailto:fpinheiro@melhoramentos.com.br">fpinheiro@melhoramentos.com.br</a>
	Francisco Alves Filho	M		Morador Melhoramentos Florestal	<a href="mailto:fafilho@melhoramentos.com.br">fafilho@melhoramentos.com.br</a>
	Gelson Faria	M		Presidente Associação Moradores	<a href="mailto:amrcr@amrcr.org.br">amrcr@amrcr.org.br</a>
	Genival Nolasco de Pontes	M		Instituto Chão Verde	+55 11 4444-1549

	Idir de Souza	F		Municipality of Caeiras	<a href="mailto:fsorral@caieiras.s.p.gov.br">fsorral@caieiras.s.p.gov.br</a>
	Marcelo Ribeiro	M		Instituto Chão Verde	<a href="mailto:brmarcello@hotmail.com">brmarcello@hotmail.com</a>
	Mauri Hernandes	M		Municipality of Caeiras	<a href="mailto:maurihs@ig.com.br">maurihs@ig.com.br</a>
	Massimo Di Biaggio	M		Due Mondi Ecotec	<a href="mailto:massimo@duemondi.com">massimo@duemondi.com</a>
	Nilton Leite Almeida Branco	M		Opção Verde	<a href="mailto:opcaooverde@sorocababa.com.br">opcaooverde@sorocababa.com.br</a>
	Paulo Scaloni	M		Wood Comercial	<a href="mailto:comercial@woodcomercial.com.br">comercial@woodcomercial.com.br</a>
	Paloma Sarria	F		Myclimate	<a href="mailto:paloma.sarria@myclimate.org">paloma.sarria@myclimate.org</a>
	Pedro Siqueira Junior	M		Municipality of Caeiras	<a href="mailto:pedrinhosiqueira@ig.com.br">pedrinhosiqueira@ig.com.br</a>
	Rafael Dias Affonso	M		R. Affonso	<a href="mailto:raffonsotransportes@hotmail.com">raffonsotransportes@hotmail.com</a>
	Renato Alberto Vasconge	M		Melhoramentos Papéis	<a href="mailto:rvasconge@cmpc.com.br">rvasconge@cmpc.com.br</a>
	Robson José Premoli Pacheco	M		Instituto Chão Verde	<a href="mailto:robsonjpacheco@hotmail.com">robsonjpacheco@hotmail.com</a>
	Rogério Ap. Dias Affonso	M		R. Affonso	<a href="mailto:raffonsotransportes@hotmail.com">raffonsotransportes@hotmail.com</a>
	Ronald Cordero	M		Melhoramentos Papéis	<a href="mailto:rcordero@cmpc.com.br">rcordero@cmpc.com.br</a>
	Samuel Garcia	M		Melhoramentos Papéis	<a href="mailto:sgarcia@cmpc.com.br">sgarcia@cmpc.com.br</a>
	Saulo Teixeira Albino	M		Melhoramentos Papéis	<a href="mailto:stalbino@cmpc.com.br">stalbino@cmpc.com.br</a>
	Sérgio Torsani	M		CDM	<a href="mailto:torsani@madeiras-cdm.com.br">torsani@madeiras-cdm.com.br</a>
	Wanderli Franco	M		Municipality of Caeiras	<a href="mailto:wanderli.franco@ig.com.br">wanderli.franco@ig.com.br</a>

Comments accompanying Annex 1

The people present at the LSC covered most of the invited interest groups (excluding the organizers; about 15 % NGOs, 36 % Community representatives, 30 % suppliers, 19 % administration/municipality, but one important group was absent; the local schools. The main reason for their absence was that during the 12<sup>th</sup> of April there was School Board meeting that they must attend. After the LSC, one school has given their feedback as see above in point B2

#### iv. Evaluation forms

Below follows some examples from the questionnaire used during the LSC meeting. Copies of the original forms are attached (in original language) as Annex 2.

##### *One example from a service/transport company*

Name / company	Score (1-5) 1 = bad 5 = good	Comments
Rogério / R. Affonso		
What is your opinion of the Stake Holder Meeting?	5	I thought it was well promoted and with people present with different positions and from different segments.
What did you like about the project?	5	The reduction of the pollution of the environment. The generation of employment. The consumption of a cleaner energy.
What did you not like about the project?	1	There was nothing I did not like.
How did you hear about the project?	5	From Melhoramentos Papéis.
Signature/ Date	16	(Original form with signature is provided in Annex 2)
12/04/12		

##### *One example from an ONG*

Name / company	Score (1-5) 1 = bad 5 = good	Comments
Genival Nolasco de Pontes / ONG		

(ICV)		
What is your opinion of the Stake Holder Meeting?	5	Congratulations for the initiative: a stake holder consultation is the base for all good projects. It is necessary for the planning of all kinds of projects.
What did you like about the project?	5	The initiative, creativity and the environment
What did you not like about the project?	1	Maybe the promotion of the event. More promotion needed. It would be interesting to have school directors, municipality and community representatives, etc, in the room.
How did you hear about the project?	5	By e-mail.
Signature/ Date  12/04/12	16	(Original form with signature is provided in Annex 2)

***One example from the Municipality of Caieiras***

Name / company	Score (1-5) 1 = bad 5 = good	Comments
Mauri Hernandes / SEMMA (Municipality)		
What is your opinion of the Stake Holder Meeting?	5	A technical visit should have been included, to show the technology. A visit to the plant.
What did you like about the project?	5	It is a very big and important project that needed customizations and technology, highlighting Caieiras.
What did you not like about the project?	1	-----
How did you hear about the project?	5	Through the official ad in the newspaper.

Signature/ Date  12/04/12	16	(Original form with signature is provided in Annex 2)
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***One example from a Community representative***

Name / company  Renato Alberto / Melhoramentos Papéis	Score (1-5) <b>1 = bad</b> <b>5 = good</b>	Comments
What is your opinion of the Stake Holder Meeting?	5	It brought transparency concerning the renewable energy project of Melhoramentos Papéis.
What did you like about the project?	5	The fuel switch from a fossil fuel consumption to a “clean” energy.
What did you not like about the project?	1	
How did you hear about the project?	5	Through the company (Melhoramentos Papeis)
Signature/ Date  12/04/12	16	(Original form with signature is provided in Annex 2)

***One example from a supplier***

Name / company  Nilton Leite/ Opção Verde	Score (1-5) <b>1 = bad</b> <b>5 = good</b>	Comments
What is your opinion of the Stake Holder Meeting?	5	Excellent opportunity for problem solving, solutions and information exchange.

What did you like about the project?	5	The transparency.
What did you not like about the project?	1	-----
How did you hear about the project?	5	Invitation.
Signature/ Date  12/04/12	16	(Original form with signature is provided in Annex 2)

The participants were in general very positive to the LSC. Many thought that the exchange of information and the transparency of the whole Project was very important and “essential for a good project” and for “the integration with the community/stake holders”. Also, as a training exercise, the LSC was very important as it explained a lot of details about the projects and carbon finance.

The social and environmental impacts of the Project were positive according to the participants and which was greatly appreciated, especially that the project was going from the use of a fossil fuel toward the use of a clean energy source.

From the social point of view the creation of employment from the projects were the most relevant issue for the participants.

As a less positive aspect was that many participants wanted more technical info about the Project as well as a visit on site, but this was not planned during the LSC meeting but rather it be done during the stake holder feedback round.

Finally, even as the LSC was extensively communicated thought various local and regional media, some participants thought that it had not been divulgated enough.

#### E.1. Assessment of stakeholder comments

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)

<p>There should be a control of the homogeneity of the biomass mixture (comments from Mr. Nilton Leite, Opção Verde and Mr. Bonfilio Alves, Municipality of Caieiras)</p>	<p>Yes</p>	<p>Today the project owner is already taking measures as to ensure a homogeneous mixture of the biomass. Operators are using machinery to mix the different types of residues until they are homogenously mixed. But since the characteristics of the biomass have small fluctuations (ash content, humidity, density etc) there is also a feedback from the boiler control room regarding the different operating parameters of the boiler. If the mixture is not optimal, this will have an effect on temperature and pressure in the boiler which will be seen by the control system. This will immediately communicated to the operators who will then change the mixture accordingly.</p>	
<p>There should be done a continuously monitoring of the latest technology developments in the emission control field (comments from Mr. Bonfilio Alves, Municipality of Caieiras)</p>	<p>Yes</p>	<p>The project developer will conduct an assessment of the latest developments in the field on a yearly basis</p>	
<p>How is transparency and control of emissions done? (comments from Mr. Nilton Leite, Opção Verde)</p>	<p>Yes</p>	<p>Regulated emission parameters are periodically reported to the environmental authorities.</p>	
<p>The social benefits of the Project should be applicable to the whole</p>	<p>Yes</p>	<p>Yes, the incentives are open to recipients throughout the whole</p>	

	region of Juquery (comments sent by e-mail from Rosmari Aparecida Neidenbach and Marcos Aparecido de Oliveira, Instituto Chão Verde)		region	
	Financial support to school should be channeled through entities with large experience in educational projects (like an ONG). (comments sent by e-mail from Rosmari Aparecida Neidenbach and Marcos Aparecido de Oliveira, Instituto Chão Verde)	Yes	Melhoramentos Papeis will evaluate the best ways to perform the social projects, including evaluating if it is better to channel the financing though for example an NGO	
	Difficulty in finding information on carbon financing for small projects (comments from Mr. Nilton Leite, Opção Verde)	Yes	Information was provided at the LSC concerning type of projects and minimum amounts of CERs/VERS and/or biomass for these projects. Melhoramentos Papeis is open to transfer the knowledge and experience they acquired with the development of this Project.	
	Why can't all the sludge be burnt in the boiler? (comments from Mr. Bonfilio Alves, Municipality of Caieiras)	Yes	That sludge has a too high mineral content (and low heat value) to be suitable as a combustible biomass in the boiler.	

### **Summary of alterations:**

- Melhoramentos Papeis will conduct an assessment of the latest developments of emission control technology on a yearly basis
- The social benefits of the Project are now open to recipients throughout the whole region, not just the municipality of Caieiras
- The Melhoramentos Papeis will evaluate the best ways to perform the social projects, including evaluating if it is better to channel the financing through for example an NGO, instead of directly through Melhoramentos Papeis.
- Melhoramentos Papeis is open to transfer the knowledge and experience they acquired with the development of this Project to other interested participants.

### **E.2. Stakeholder Feedback Round**

Please describe report how the feedback round was organised, what the outcomes were and how you followed up on the feedback.

The stake holder feedback round took place between 21-01-2013 and the 21-03-2013.

The updated Local Stakeholder Consultation report, the PDD and the GS Passport were all uploaded on Melhoramentos' website. An invitation was to all stakeholders invited to the LSC, by e-mail or post. Below follows the invitation letter and a translation to English. The invitation contained instructions on how to download the above documents from Melhoramentos' Web site or where to get hard copies if needed, and contact details for commenting on the project. Those who received the invitation by post received the same invitation letter and hard copies of the documents.

The letter also contained an invitation to a site visit of the project on the 7<sup>th</sup> of March, see below:



Rod. Presidente Tancredo de Almeida Neves, km34 – Centro – Caeiras, CEP 07700-000  
Fone: 4441-7403 Fax:4441-7202

Caeiras, 21 de Janeiro de 2013

**Convite da Segunda Etapa da Consulta Pública – Projeto MDL**

Estimado (a),

Através deste, a Melhoramentos Papéis tem o prazer de convidá-lo (a) para participar da Segunda Etapa da Consulta Pública (*Second Stakeholder Feedback Round*) do projeto de Redução Voluntária de Emissões “Geração de Energia Térmica Usando Biomassa Renovável”.

O Projeto está atualmente em processo de validação pelo mercado voluntário de carbono e uma das principais exigências é a realização de uma consulta pública sobre o projeto, através do qual convidamos as principais autoridades, ONGs, comunidades e outras partes interessadas a apresentar suas opiniões e/ou recomendações sobre o projeto. Esta consulta irá considerar todos os comentários e sugestões recebidos para melhorar e consolidar o projeto.

A consulta será realizada no período de **21/01/13 à 21/03/13**. Durante este período a documentação do projeto ficará disponível para *download* no site da Melhoramentos, conforme link e senha abaixo:

[http://www.melhoramentoscmpc.com.br/second\\_stakeholder\\_feedback\\_round](http://www.melhoramentoscmpc.com.br/second_stakeholder_feedback_round)

Senha de acesso: 2013BCTMP

A documentação também ficará disponível para consulta na unidade da Melhoramentos Papéis, no seguinte endereço:

Rod. Pres. Tancredo de Almeida Neves, km 34 – Centro  
Caeiras, SP – CEP: 07700-000  
Dept. Meio Ambiente

Pedimos a gentileza de preencher o questionário disponível no site com suas opiniões e/ou comentários ou enviar para o e-mail: [consulta\\_publica@cmcp.com.br](mailto:consulta_publica@cmcp.com.br).

**Visita**

Aproveitamos para convidá-lo a participar de uma visita que a Melhoramentos Papéis irá oferecer no dia **07/03/13 às 9:30 hrs** para conhecerem as instalações desenvolvidas para este projeto.



Rod. Presidente Tancredo de Almeida Neves, km34 – Centro – Caeiras, CEP 07700-000  
Fone: 4441-7403 Fax: 4441-7202

Solicitamos a confirmação de presença e qualquer dúvida e informações adicionais entre em contato pelo telefone: (11) 4441-7403 ou pelo e-mail: [consulta\\_publica@cmpe.com.br](mailto:consulta_publica@cmpe.com.br).

Agradecemos muito sua atenção e obrigado por participar da Segunda Etapa da Consulta Pública do projeto “Geração de Energia Térmica Usando Biomassa Renovável”, suas opiniões e comentários serão muito úteis.

Atenciosamente,

Ronald Cordero  
Melhoramentos Papéis Ltda.

#### English Translation of invitation:

Caeiras, 21 January 2013

#### Invitation to the stake holder feedback round – Carbon project

Dear xxx,

With this letter, Melhoramentos Papais, have the pleasure of inviting you to attend the Stakeholder Feedback Round of the voluntary emission reduction project “Production of thermal energy from renewable biomass”

The project is presently attending validation in the voluntary carbon market and one of the main demands is the realization of a stake holder consultation for the project. This is the reason for inviting local authorities, NGO's, community representatives and other stake holder to express their opinions/recommendations for the project. This consultation will take into account all comments and suggestions that will contribute to the improvement and the consolidation of the project. .

The period for this consultation runs from 21/01/13 to 21/03/13. During this period documentation relative to the project will be available on Melhoramentos' Web site, with the following link and password:

[http://www.melhoramentoscmpc.com.br/second\\_stakeholder\\_feedback\\_round](http://www.melhoramentoscmpc.com.br/second_stakeholder_feedback_round)

Password: 2013BCTMP

The documentation will also be available for consultation at the site of Melhoramentos Papeis, on the following address:

Rod. Pres. Tancredo de Almeida Neves, km 34 – Centro

Caieiras, SP – CEP: 07700-000

Environmental Department

We kindly ask you to use the questionnaire available on the site to express your comments or suggestions, or just send us an e-mail to: [consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br).

### Visit

We take this opportunity to invite you to a visit to get to know the facilities involved in this project, that Melhoramentos Papeis will organize on 07/03/2013 at 9.30

To confirm your presence and also if you have any questions or require additional information, please contact us by phone (11) 4441-7403 or by e-mail: [consulta\\_publica@cmpc.com.br](mailto:consulta_publica@cmpc.com.br).

We kindly thank you for your attention and for participating in the Stake Holder Feedback round of the project “Production of thermal energy from renewable biomass”. Your opinions and commentaries will be much appreciated.

Best regards,

Ronald Cordero

Melhoramentos Papeis Ltda.

### ***Realization of site visit***

The site visit began with a presentation of the project activity and an overview of the carbon financing mechanism for the project. After that, a visit to the new biomass boiler and to other auxiliary equipment followed. A question-response session concluded the visit. Below follows some pictures from the visit and a list of the people present on this occasion.



Name of participant	Male/ Female	Position	Organisation
Agnaldo Brito	M	Journalist	Caieiras Municipality
Domingos Soares	M	Administrator	Setenta (Supplier)
Idir de Souza	F	"First lady assistant"	Caieiras Municipality
Elizangela S. Carlos	F	Director - "Entrepreneurship house"	Caieiras Municipality
Fredy Arl Schnell	M	Secretary - Municipal Economic Development	Caieiras Municipality
Felipe Teodoro Administrador	M	Administrator	Felipe Teodoro (Supplier)
Jailma Barbosa Silva	F	President	Caieiras Municipality
Jefferson R. de Castro	M	Environmental Manager - Environmental department	Caieiras Municipality
Sara B. Hamamoto	F	First lady - Social and solidarity Fund	Caieiras Municipality
Tatiana M. Valente	F	Agronomy Engineer - Environmental department	Caieiras Municipality

The project was praised by many of the participants and Mr. Brito said it would publish an article of the visit and the project in the local newspaper (found at the end of this section). One participant also made a comment which was relevant for the project during the visit (Mrs. Hamamoto).

During the stakeholder feedback round period, three comments/feedback were also received by e-mail, as described below:

Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Is Melhoramentos open to receive visits from schools? Would Melhoramentos like to know more about the possibilities of participating in the Social and Solidarity Fund of the Municipality of Caieiras?  Comment from Mrs. Hamamoto (Municipality of Caieiras) during site visit.	Yes	Visit by for example schools are already part of the program of the project. The possibility and interest in participating in the Fund will be evaluated accordingly.
We recommend that Melhoramentos seek partnerships with NGO's that support similar projects which contributed to sustainable development. Another suggestion is that Melhoramentos participate in the creation of an ONG-like "Institute" to continue the good work of protecting the environment and contributing to social society.  Comment made by e-mail by Alan Duarte Ferreira from the Research Institute of Human Ecology.	Yes	Melhoramentos are always open for a partnership that contributes to sustainable development. Every initiative will be analyzed according to the policy of Melhoramentos and the CMPC Tissue group. Unfortunately the creation of an "institute" is not possible as this would not be in line with the company's environmental core business.
Evaluate the possibility that Melhoramentos donates a % of the resources to the Municipal Environmental Fund of the Municipality of Caieiras. To evaluate the possibility of creating Melhoramentos' own fund that would support other NGO's projects or	Yes	The participation in most of the activities and areas mentioned are in line with Melhoramentos's concern. Exactly which initiatives and how this support will be given, has to be decided on a case-by-case basis, and more information would be needed

<p>programmatic activities in the following areas:</p> <ol style="list-style-type: none"> <li>1) Environmental education and support to the collection/separation of municipal residues and to “waste collectors”</li> <li>2) Promoting children rights by “adopting” and supporting young promising athletes (amateur and professional) sports)</li> <li>3) Promotion of peace and culture by supporting/educating “peace judges” et.al, by material and logistical means, and also by supporting Artistic/cultural events that promotes dialogues, tolerance, cooperation and community identity</li> <li>4) Increase the financing of projects through the participation in the Municipal Fund for the Rights of Children and Youth.</li> </ol> <p>Comment made by e-mail from Bonfilio Alves Ferreira from the Municipality of Caieiras</p>		<p>to make the assessment in this case.</p>
<p>How will the economic, social and environmental benefits from the Gold Standard project be done concretely? Will there be investments in education and capacity building? Will Melhoramentos themselves manage this by themselves?</p> <p>Comment made by e-mail by Elizangela da Silva Carlos from the Municipality of Caieiras</p>	<p>Yes</p>	<p>The concrete actions, including education and capacity actions, will at least initially be managed by Melhoramentos and can be found in the LSC report, including for example:</p> <ul style="list-style-type: none"> <li>• A technology training programme for forest managers/owners</li> <li>• Financial and other support to primary schools</li> <li>• Technical visits and</li> </ul>

		education activities in climate change issues.
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PÁGINA - 07

## NOTÍCIA REGIONAL

1ª Quinzena de Março de 2013

# Vereadora Jailma apóia projeto sustentável desenvolvido pela Cia. Melhoramentos no município de Caieiras

*Em visita a Cia. Melhoramentos a vereadora apreciou de perto o Projeto de geração de energia térmica usando biomassa renovável que trará benefícios econômicos, ambientais e sociais.*

A preocupação com o meio ambiente é talvez a pedra-fundamental da discussão hoje em prática sobre o direcionamento do processo produtivo para a gestão responsável dos recursos e não apenas para a geração de riqueza e consumo. Com diversos exemplos em todo o mundo temos agora em Caieiras a iniciativa da Cia. Melhoramentos através do projeto de geração de energia térmica (vapor) utilizando como combustível biomassa renovável, biomassa de resíduos e lodos industriais da fábrica de papel "tissue", em substituição das caldeiras de gás natural. O investimento permite utilizar passivos ambientais atuais como: casca de madeira de eucalipto e lodo da estação de tratamento de efluentes, visando a redução das atuais emissões em aterros e também as emissões de gases de efeito estufa substituindo a caldeira de gás natural pela nova caldeira de biomassa. O projeto será financiado através de mecanismos de

financiamento do mercado de carbono.

Segundo explicou a Consultora de Meio Ambiente e Sustentabilidade Fernanda Caroline Santini, a empresa deixa de enviar ao aterro sanitário do município 40 toneladas/dia de resíduos, isso irá garantir muitos benefícios como a redução das emissões de gases de efeito estufa através da utilização de energias renováveis, utilização de tecnologias inovadoras e limpas, otimização da gestão e do uso de recursos renováveis e a geração de rendimentos e promoção de emprego na cidade entre outros.

A vereadora disse que acredita que a Cia. Melhoramentos Papéis e Celulose – CMPC, continuará crescendo por ser líder no mercado e uma das maiores da América Latina na produção e comercialização de produtos de madeira, celulose e papel. É também uma grande contribuinte na arrecadação municipal geradora de



Foto: Arquivo JNR

empregos. E que além das questões econômicas, as medidas adotadas

comprovam que a empresa tem nítida preocupação com os impactos ambientais vindos,

nesse momento, oferecer uma admirável solução para reintegrar seus resíduos ao processo produtivo e que merece todas as nossas considerações.

### E. 3. Discussion on continuous input / grievance mechanism

The Local Stakeholder Consultation took place in April 2012, before the Gold Standard requirement for Project Participants to adopt Continuous Input & Grievance Expression Mechanisms. Therefore, such mechanisms were not discussed during the Public Local Stakeholder Consultation that took place on 12/04/2012. However, in line with the rules from the Gold Standard version 2.2, Due Mondi Ecotec and Melhoramentos Papeis have designed the Continuous Input & Grievance Mechanisms described below. These mechanisms will be announced during the stakeholder feedback round and in any successive meetings with the stake holders.

The grievance mechanisms contemplated are:

	Method Chosen (include all known details e.g. location of book, phone, number,	Justification

	identity of mediator)	
Continuous Input / Grievance Expression Process Book	Climate change information centre	One comment book will be made available in the climate change centre at Melhoramentos Papeis. The person responsible will be Fernanda Santini. The format of the comment book will be in line with the format specified in Annex W of The Gold Standard Toolkit version 2.2. Comments from the Comment Book will be collected on a periodic basis and will be addressed continuously. A record log detailing the input received and the action taken by the project participant to address the feedback / comment will be kept within the project electronic database. The record log will be made available to the DOE for each monitoring period.
Telephone access	A specific number will be assigned to the Project	A telephone number will be made available in order to collect potential input / comments from project stakeholders (this telephone number will not be a toll-free number as almost all stakeholders are in the same region as the Project Activity). A record log will also be kept within the project electronic database for each of the comments received through this channel. The record log will be made available to the DOE for each monitoring period.
Internet/email access	Specific e-mail and section on Melhoramentos web page	Contact e-mail and web page section: An email address and section on Melhoramentos Papeis web page will be made available to the stakeholders to collect input / feedback online, alongside with the contact number and e-mail to the local Gold Standard representative. Along with the feedback collected

		through the comment book and telephone, a record log will be kept for the comments received through this channel. The record log will be stored in the project electronic database and will be made available to the DOE as part of the verification process.
Nominated Independent Mediator (optional)		No need since literacy rates and internet access is wide spread among the stake holders.

## SECTION F. Outcome Sustainability assessment

### F.1. 'Do no harm' Assessment

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
<b>1 Human Rights</b>			
The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicit in Human Rights abuses.	The Project does not contemplate the disruption of the activities of indigenous communities or urban populations adjacent to the project, and therefore respects all human rights, including dignity, cultural property and uniqueness. The people who will be participating in the construction and operation of the Project are protected by local, regional and national regulations.	low	
The project does not	No, the project will not involve any involuntary	Low	



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involve and is not complicit in Involuntary resettlement.	resettlement, as the Project will be situated inside an industrial complex destined for industrial and commercial activities. In addition, the transportation of feedstock for the project will not lead to any unnecessary involuntary resettlement.		
The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage	No, as the Project is located in an already developed industrial area and respects all the local and national regulations with respect to the development of this type of projects and activities. Moreover, sourced biomass will not come from, and will therefore not affect, sites with unique natural environmental features that embody cultural values.	Low	
<b>2 Labour Standards</b>			
The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights.	The Project respects the freedom of association and human rights of the employees, and will be developed in strict respect of local and national labour laws in Brazil. Many employees of Melhoramentos Papeis already are part of worker's unions.	Low	
The project does not involve and is not	No, individuals employed or hired during the construction and operation	Low	

complicit in any form of forced or compulsory labour.	of the Project, are contracted according to Brazilian local and national labour laws.		
The project does not employ and is not complicit in any form of child labour.	No, all employees are adult men and women, so no children will be used for any kind of labour associated with the Project.	Low	
The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.	No, all people employed or hired by the Project be contracted according to the principles of gender equality and transparency established by Brazilian law.	Low	
The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments.	Yes, the Project provides workers with a safe and healthy work environment as it will be developed in strict accordance with relevant Brazilian local and national laws. All workers are given necessary training, protection equipment and a security and health manual. Melhoramentos Papeis are cooperating extensively with the worker's unions and worker's representatives and have working groups constituted of employees and worker's representatives for risk assessment. There are already health insurance plans in place for all workers.	Low	
<b>3 Environmental Protection</b>			

The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.	Yes, the Project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle. The project will only use renewable biomass residues. The Project will reduce GHG and other types of emissions and contribute to better managed forests and valorisation of residues.	Low/Medium	Training sessions will be held with suppliers and forest owners to best management improve the management of biomass and to improve the forest management
The project does not involve and is not complicit in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value, or (d) recognized as protected by traditional local Communities.	No, since the Project lies in an already developed industrial site and will not interfere in any way with surrounding natural habitats. Moreover it does not have any negative impact on the region's Biodiversity or soil quality because it incentives Sustainable Managed Forests.	Low	
<b>4 Anti – Corruption</b>			
The project does not involve and is not complicit in corruption.	No, as the whole development of the Project has been done in a very transparent manner, i.e. financial, technical,	Low	

	legal, environmental and social aspects, according to the local and national laws in Brazil. Moreover, the group of which Melhoramentos Papeis is part of, has developed their own Corruption Prevention Model for increased transparency and prevention of corruption activities.		
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## F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
Gold Standard indicators of sustainable development	If relevant, copy mitigation measure from 'Do No Harm' assessment, and include mitigation measure used to neutralise a score of '-'	Check <a href="http://www.undp.org/mdg">www.undp.org/ mdg</a> and <a href="http://www.mdgmonitor.org">www.mdgmonit or.org</a>  Describe how your indicator is related to local MDG goals	Defined by project developer	<u>Negative impact:</u> score '-' in case negative impact is not fully mitigated, score '0' in case impact is planned to be fully mitigated  <u>No change in impact:</u> score '0'  <u>Positive impact:</u> score '+'
Air quality			The boiler system includes a baghouse filter to control particulate emissions and air	0

			staging (over-fire air) and flue-gas recirculation (FGR) to control NOx emissions. Both NOx and particulate emissions comply with legal limits. The proposal and the contract with the supplier of the biomass boiler sustaining the above has been given to the DOE. It also possesses an advanced computerized control system in order to achieve a high boiler performance with increased combustion conditions that support the reduction of emissions. All these measures are considered Best Available Technology (BAT) for Biomass Combustion Plants. This ensures that there is no impact on air quality. Emission levels will be monitored according to the relevant national law. Overall effects on air quality is neutral.	
Water quality and quantity			There are no significative	0

		<p>differences in terms of waste water production between the Project Activity and the Baseline, and both will have the same type of water treatment system. The amount of generated waste water from the boiler is very low compared to the total effluents generated by the mill (total effluents are approx. 410 m3/h and effluents from the boiler and the sludge dryers are approximately 0.2 % of that flow . The effluent complies with the relevant legal requirements of the São Paulo state.</p> <p>The impact is therefore considered to be neutral.</p>	
Soil condition		<p>There are no residues that affect soil conditions produced from the project activity. Today ashes from the biomass combustion are transferred to an internal nearby landfill in conformity with local regulations, but a program will</p>	0

			<p>be established to investigate the potential areas of valorisation of the ashes from the combustion process, such brick production, road construction, agricultural fertilizer, etc.</p> <p>Even though this indicator might be positive in the future, today the general impact is neutral.</p>	
Other pollutants			<p>No alteration of noise levels, both night and day, and week-ends. This was confirmed during the stake holder consultation as noise was not considered to be any problem by the participants. The stake holder consultation was held only a couple of months after the start-up of the boiler. The implemented protective measure complies with the legal requirements for the noise from boiler operations as can be seen from a document provided to the DOE where it shows that protective measures decrease</p>	0

			<p>decibel levels to 74 dB (A), well below the tolerance level of 85 dB (A).</p> <p>Impact is therefore neutral.</p>	
Biodiversity			<p>There will be no changes in the preservation of ecosystems and impacts on biodiversity.</p> <p>Logging will not be affected since the Project Activity itself will use only biomass residues. As demonstrated from the study from ALEF forestal the surplus of available biomass within 250 km from the Project Activity is 248 % - biomass surplus compared to what is used today + use within the Project Activity. Since Natural Gas pipelines to the mill already exist there will be no positive impacts from the Project Activity. The impact is therefore neutral.</p>	0
Quality of employment		<p>Contributes to MDG 3 because the project activity will create new employments directly and</p>	<p>Creation of additional jobs along the whole biomass supply chain. The Project has already created 8 jobs at the service</p>	+

	<p>indirectly connected to the biomass supply chain. The jobs will be open to anyone irrespectively of their age, gender, race or culture.</p>	<p>companies that are contracted to assist with the boiler and to manage the biomass mixing in the wood biomass yard and feeding to the boiler, inside the mill area. These employments can be considered as stable as there will always be a demand for these services as long as the biomass boiler is operational. These employments have most of the benefits that employees at the mill have. 4 of the created employments are wheel loader drivers with the following benefits:</p> <ul style="list-style-type: none"><li>Occupational Health Certificate (ASO) - Annual</li><li>Occupational Health Control Program (PCMSO) - Annual</li><li>Environmental Risk Prevention Program (PPRA) - Annual</li><li>Compliance with the Health, Safety and Environment Policy Guidelines of CMPC. Basket of Consumer Goods Allowance, Food Allowance,</li></ul>	
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		<p>Transportation Allowance. The other 4 employments are “Utilities Operations Assistants”, and have the following benefits: Atestado de Saúde Occupational Health Certificate (ASO) - Annual Occupational Health Control Program (PCMSO) - Annual Environmental Risk Prevention Program Program (PPRA) - Compliance with the Health, Safety and Environment Policy Guidelines of CMPC. Medical Assistance, Food Allowance, Transportation Allowance, Life Insurance and Technical Trainings. Moreover, employments already in place at the mill will receive additional promotional opportunities and trainings because of the biomass boiler. The mill has comprehensive “Health, Safety and Environment Policy” in place including a “zero</p>	
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		<p>accidents” objective so it is important to ensure trainings to minimize risks along the biomass supply chain. All new employees, both internal and external receives the following trainings: Explanation of CMPC’s Health, Safety and Environment Policy, Risk Management of Accidents and Environmental Impacts, Accidents Assessment, and Reporting of Accidents, Hazards and non-conformities. Documentation provided to the DOE include: created jobs, benefits and salary levels; realized trainings; CMPC’s health, safety and environmental policy. The Project will also include training programmes for forest managers/biomass suppliers to improve their technical skill and awareness of environmental issues. The total effect is positive.</p>	
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Livelihood of the poor			Although the Project improves the number of employments in the region, poor people will not benefit from this because neither the project proponent nor the suppliers work with poor labor. Even though there might be some poor people employed further down the supply chain we cannot be certain of this. So to be conservative, the impact is therefore considered to be neutral.	0
Access to affordable and clean energy services			The project will produce energy from a regional renewable resource for the productive processes of the mill instead of importing Natural Gas. This will promote the use of biomass instead of fossil fuels with positive environmental and social-political impacts. However this will not directly affect the stability or the access to clean energy services for the people of the region. Therefore the impact is	0

			considered as neutral.	
Human and institutional capacity		Contributes to MDG 2 because the project activity contribute to increase educational levels and access to information, on both environmental and non-environmental issues.	The Project Owner has always been open to share and show the Project Activity to the general public and talk about climate change issues. Therefore guided visits are an integral part of the Project. Moreover the Project Activity has supported the creation of three school libraries. The impact is therefore positive.	+
Quantitative employment and income generation		Contributes to MDG 1 and 2 because it will generate new employment in the region, increasing growth rate of GDP per person employed and the Employment-to-population ratio. Employments are open to anyone irrespectively of their age, gender, race or culture. It will also increase the household income in the	The Project Activity will generate a number of jobs across the whole biomass supply chain throughout the region. This will increase the generation of local income. A questionnaire has been given to all biomass suppliers (11) of which 72 % replied that the Project Activity has created additional 29 direct and 9 indirect jobs and over 50 % replied that their income had increased. The created jobs are mainly for local	+

		<p>region.</p> <p>Moreover, because of the investment in educational and other community project it will contribute to raising the level of education of children thereby improving literacy rate and increasing the probability of pupils starting grade 1 to reach last grade of primary.</p>	<p>people since they are related to the biomass supply chain which is regional or local in nature. Moreover 8 additional local jobs have been created (Wheel loader driver and Utilities Operations Assistants with monthly salary levels of R\$ 1,454.00 and R\$ 1,279.85, respectively). The impact is therefore positive.</p>	
Balance of payments and investment		<p>Contributes to the MDG 7 since it involves a substitution of a limited fossil fuel resource by a renewable resource (biomass). Since it involves unusual applications of a technology, this increases the confidence of investors in these type of applications.</p>	<p>The project Activity generates substantial investments in the region, both directly at the mill and indirectly, throughout the biomass supply chain. Moreover it substitutes a fossil fuel for locally generated biomass, which improves the balance of payments in the region. The impact is therefore positive.</p>	+
Technology transfer and technological self-reliance		<p>Contributes to the MDG 7 since it involves several actions</p>	<p>The Project activity involves the investment in and adaptation of new</p>	+

	<p>to promote environmentally sound technologies, the adaption of technologies in new unproven ways and also the import of foreign technology, which establishes a link and know-how transfer between the national sector and international technology companie-s. - Moreover, it contributes to decrease CO2 emissions on a regional and national level.</p>	<p>green technologies to unproven circumstances (treatment and reuse of by-products for energy generation), including training session for the use of the new technology. It also improves the technological auto sufficiency of the region and reduces CO2 emissions as it substitutes a fossil fuel with renewable energy generation. The Project activity will also develop a cooperation programme with universities, companies and final customers and a technological transfer program for suppliers/forest owners. The impact is therefore positive.</p>	
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#### **Justification choices, data source and provision of references**

A justification paragraph and reference source is required for each indicator, regardless of score

Air Quality	No changes to air quality will take place. The boiler system includes a baghouse filter to control particulate emissions and air staging (over-fire air) and flue-gas recirculation (FGR) to control NOx emissions. Technical information regarding the bag house filter can be found on page 14 in the proposal from the supplier (n.º 1150 R4, date 29-11-2010). It
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also possesses an advanced computerized control system in order to achieve optimal combustion conditions that support the reduction of emissions (STEAM-LOGIX Serie – P including a programmable controller unit CompactLogix from Allen Bradley).

All those are considered Best Available Technology (BAT) for Large Combustion Plants by the European Union.<sup>1</sup> This ensures that there is no impact on air quality and complies with the limits required by the regulator CONAMA according to the Federal law nº 382<sup>2</sup> (Particulate emissions < 520 mg/Nm3 and NOx levels < 650 mg/Nm3). The boiler system ensures a maximum emission level of 75 mg/Nm3 of particulates and 128 mg/Nm3 of NOx, well below the legal limits. This last parameter was calculated transforming max flue gas output from the baghouse filter (125,000 m3/h) to Nm3/h by assuming that:

- Compressibility of the flue gas is close to 1
- Pressure is ~ atmospheric pressure, and
- Temperature of flue gas = 453.15 Kelvin

By using the ideal gas formula this yields:

$$V1 = 273.15/453.15 * 125,000 = 75,300 \text{ Nm/m}^3$$

Thus, by using data from the boiler supplier we have: 0.75 Kg Nox/ton biomass fuel \* 12.860 ton biomass fuel/h)/75,300 Nm3/h of max flue gas output \* 1,000,000 = 128 mg NOx/Nm3. The proposal and the contract with the supplier of the biomass boiler sustaining the above (pages 14 and 26, respectively) has been given to the DOE:

- "Offer Steam Master" PDF, reference: Proposta de Fornecimento No. 1150 R4 – Melhoramentos Papéis – JPI 40 BIO, dated 29 November 2010
- “Contrato Steam Master 30-11-10” PDF, reference “Contrato de Caldeira de Biomassa”, API no 503 000145, dated 30

<sup>1</sup> Integrated Pollution Prevention and Control Reference Document on Best Available Techniques for Large Combustion Plants by the European Commission, July 2006.

[http://eippcb.jrc.ec.europa.eu/reference/BREF/lcp\\_bref\\_0706.pdf](http://eippcb.jrc.ec.europa.eu/reference/BREF/lcp_bref_0706.pdf)

<sup>2</sup> Federal law, CONAMA, nº 382, 26<sup>th</sup> of December 2006.

<http://www.mma.gov.br/port/conama/legiabre.cfm?codlegi=520>

	<p>November 2010</p> <p>. Therefore no monitoring will take place regarding this indicator. Monitoring of NOx levels will be done according to the above national law.</p>
Water quality and quantity	<p>The project will not affect the amount or quality of the water in the region in any significant way. The waste water plant uses dirty water from the nearby river which is then cleaned, used internally and finally treated according to BAT and again released into the nearby river. The amount of waste water produced from the biomass boiler and the sludge dryers (around 7,500 m3/year) is very small compared to the total effluents produced from the mill (around 0.2 %) and to the recipient (river Juqueri, part of river Tiete which is the largest river to cross the São Paulo State<sup>3</sup>). The effluents from the mill comply with the legal requirements of the São Paulo State Decree Law 8468/76<sup>4</sup>. An analysis of the effluent has been provided to the DOE (Item n.º 10 – exit from the lagoons – indicate the analysis of the waste water released to the river):</p> <ul style="list-style-type: none"> <li>• "analise aguas ETE L7509001_Melhorca_2008" PDF</li> </ul> <p>Therefore no monitoring will take place regarding this indicator.</p>
Soil condition	<p>All sludge is used internally as a fuel for the boiler. The current solution today for the produced bio-ash, which is a potentially good fertilizer<sup>5</sup>, is deposition in an internal landfill in compliance with São Paulo State Decree Law 8468/76. The project will not affect the soil condition in the region in any significant way. Therefore no monitoring will take place regarding this indicator.</p>
Other pollutants	<p>Noise levels and protective measures for boiler operators complies with the legal limits (Normative Rule n.º 15<sup>6</sup>). A document showing the compliance</p>

<sup>3</sup> [http://pt.wikipedia.org/wiki/Rio\\_Tiet%C3%A9](http://pt.wikipedia.org/wiki/Rio_Tiet%C3%A9)

<sup>4</sup> São Paulo State Decree law nº 8468/76, 8<sup>th</sup> of September 1976.

<http://www.cetesb.sp.gov.br/Institucional/documentos/Dec8468.pdf>

<sup>5</sup> Overview of options for utilisation of (biomass) ashes, pages 19-20.

[http://www.varmeforsk.se/files/program/askor/ECN\\_Pels\\_final.pdf](http://www.varmeforsk.se/files/program/askor/ECN_Pels_final.pdf)

<sup>6</sup> Normative rule 15, 8<sup>th</sup> of june 1978 .

	<p>of the noise levels(row “Fisico – Ruido”) has been given to the DOE. Noise is not a problem according to the stake holders present during the stake holder consultation meeting held a few months after the start of the project. No other pollutants are associated with the Project Activity. Therefore no monitoring will take place regarding this indicator.</p>
Biodiversity	<p>The Project will use only biomass residues and surplus biomass is demonstrated to be at least 248 % so there will be no impact on habitats or ecosystems. This has been demonstrated in the study given to the DOE:</p> <ul style="list-style-type: none"> <li>• "Disponibilidade de biomassa florestal no Estado de São Paulo", PDF report by ALEF Florestal, dated 2011</li> </ul> <p>Since biodiversity will not be affected by the Project Activity no monitoring of this indicator will take place.</p>
Quality of employment	<p>The Project has already created 8 jobs at the service companies that are contracted to assist with the boiler and the biomass park. These can be considered long term employments as the demand for these services will always exist during the life time of the boiler. Employments already in place will receive additional promotional opportunities and trainings because of the biomass boiler. Employees at the service companies have most of the benefits that employees at the mill have, such as health check-ups, food allowances, transport allowances, life insurance, security and risk prevention trainings, environmental risk prevention trainings, etc. Especially the security and risk prevention trainings along the whole biomass supply chain are essential as the mill has a health, safety and environmental policy in place, including a “zero accidents” objective. The following documentation including information of created jobs, benefits and salary levels; realized trainings; CMPC’s health, safety and environmental policy; was provided to the DOE:</p> <ul style="list-style-type: none"> <li>• "Empregos criados" Excel file</li> <li>• "Trainamentos andritz 2011" PDF</li> <li>• "Treinamentos melhoramentos" Excel file</li> <li>• "Certificados curso de seguranca 16-07-2010"</li> </ul>

	<p>PDF – Curso de Segurança Para Operador de Caldeiras</p> <ul style="list-style-type: none"> <li>• "Mistura e abastecimento de biomassa" PDF</li> <li>• "Procedimento de mistura de lodo" PDF</li> <li>• "treinamiento SISECO 03_1109" PDF – Política de segurança</li> <li>• "treinamiento SISECO 15_1009" PDF – Mapa de Responsabilidade – Check-list de Area de Trabalho</li> <li>• "treinamineto SISECO 04_1109" PDF – Gestão de Riscos – Confecção de Planilha de Apoio para as matrizes.</li> <li>• "Inquerito emprego e renda criada junto com os fornecedores" Excel file</li> <li>• "Politica SISECO_Pedro U" PDF</li> </ul> <p>For the monitoring we will measure the number of workers employed (directly or indirectly) because of project activity, with either qualified job tasks or that receive benefits such as health insurance and/or trainings in for example risk prevention and environmental issues.</p>
Livelihood of the poor	The project activity will not particularly affect the livelihood of the poor since poor labor is not used by suppliers or by the project proponent. The reference here is CMPC's own staff and its knowledge of the suppliers and their staff. Even though there might be some positive indirect impacts for the poor further down the biomass supply chain, to be conservative this indicator is scored as neutral. Therefore no monitoring will be made.
Access to affordable and clean energy services	Even though the project implies the production of clean energy from biomass residues, there will be no improvements as to the accessibility or the stability of supply of energy to the habitants of the regions since the produced energy is mainly used for internal production purposes (see project description in section B). Therefore this indicator is scored neutral and no monitoring will take place.
Human and institutional capacity	The project activity will support local primary schools, guided visits to the project site, and raise awareness of climate change issues. Guided visits will be made to the Project, open to the general public. One such visit, done during the stakeholder feedback round with the presence of suppliers and people from the municipality of Caieiras, led to the publication of a

	<p>newspaper article about the project in the local newspaper "Jornal de Caieiras Notícia Regional" (for the visit and a copy of the article see section E.2). R\$ 100.000 has already been invested in school related projects. The indicators to monitor will be a) activities developed and resources made available for community projects b) n.º of guided visits to the Project Activity</p>
Quantitative employment and income generation	<p>A questionnaire has been given to all biomass suppliers (11) of which 72 % replied that the Project Activity has created additional jobs; 29 direct jobs and 9 indirect jobs. Moreover, over 50 % of the suppliers also replied that their income had increased. Evidence of the above survey have been given to the DOE. At least 8 additional jobs have been created at the service companies operating and maintaining the biomass boiler and managing the biomass park with monthly salary levels ranging from R\$ 1,279.85 to 1,454.00. These employments are mainly for local people. Documentation showing jobs created, job descriptions, realized trainings, health and safety regulations, labor conditions and living standards (salary levels) has been given to the DOE:</p> <ul style="list-style-type: none"> <li>• "Empregos criados" Excel file</li> <li>• "Inquerito emprego e renda criada junto com os fornecedores" Excel file</li> </ul> <p>For the quantitative employment and income generation it will be necessary to monitor the total number of jobs that the project creates and the increase in level of income.</p>
Balance of payments and investment	<p>The project Activity involves substantial investments in the region. Moreover it improves the balance of payments in the region as it substitutes an imported fossil fuel for locally generated biomass. At present, investments of over 11,000,000 R\$ have been done at Melhoramentos Papeis for the Project Activity. The project is foreseen to substitute 237,293,510 m<sup>3</sup> of natural gas during the life-time of the project . Documentation supporting the above has been provided to the DOE:</p> <ul style="list-style-type: none"> <li>• "Offer Steam Master" PDF, reference: Proposta de Fornecimento No. 1150 R4 – Melhoramentos Papeis – JPI 40 BIO, dated 29 November 2010</li> <li>• "Contrato Steam Master 30-11-10" PDF,</li> </ul>

	<p>reference "Contrato de Caldeira de Biomassa", API no 503 000145, dated 30 November 2010</p> <p>The indicators to measure will be the total investments done and the quantity of natural gas that would have been used in the absence of the project activity.</p>
Technology transfer and technological self-reliance	<p>Training sessions have already been made for personnel involved with the boiler and the sludge dehydration systems and other auxiliary equipments. Documentation of some of the realized trainings has been given to the DOE:</p> <ul style="list-style-type: none"> <li>• "Trainamentos andritz 2011" PDF</li> <li>• "Treinamentos melhoramentos" Excel file</li> <li>• "Offer Steam Master" PDF, reference: Proposta de Fornecimento No. 1150 R4 – Melhoramentos Papeis – JPI 40 BIO, dated 29 November 2010</li> <li>• "Mistura e abastecimento de biomassa" PDF</li> <li>• "Procedimento de mistura de lodo" PDF</li> <li>• "Treinamento SISECO 15_1009" PDF – Mapa de Responsabilidade – Check-list de Area de Trabalho</li> <li>• "Treinamento SISECO 04_1109" PDF – Gestão de Riscos – Confecção de Planilha de Apoio para as matrizes</li> </ul> <p>These trainings will continue to be made periodically. It is also foreseen to develop other types of technical or forestry-related training with suppliers/forest owners during the life-time of the Project. The indicators to monitor is 1) the number of people that has received training for the use of the new technology (boiler, sludge dehydration systems, auxiliary equipments) or training in wood processing and other forestry-related training; 2) the progress of the cooperation programme for the valorization of biomass ash and other residues.</p>

## SECTION G. Sustainability Monitoring Plan

No	1
Indicator	Biodiversity

Mitigation measure	No mitigation measure required	
Chosen parameter	Biomass availability	
Current situation of parameter	Large surplus of available biomass in the region. The surplus of available biomass within 250 km from the Project Activity is 248 % - biomass surplus compared to what is used today + use within the Project Activity.	
Estimation of baseline situation of parameter	Large surplus of available biomass in the region.	
Future target for parameter	At least 25 % biomass surplus compared to what is used today + the use of biomass within the Project Activity.	
Way of monitoring	How	Periodical survey of biomass surplus in the proximity of the project proponent. These surveys will have similar indicators and range to the “baseline” biomass surplus study, for comparability reasons. If possible, the same company will be used for these updated studies as the one which did the baseline study (ALEF Florestal).
	When	Updated every 3 years, consolidation in the Project database
	By who	Reinaldo César, wood management

No	2	
Indicator	Quality of employment	
Mitigation measure	No mitigation measure required	
Chosen parameter	Number of external employees that receives benefits or training in for example risks prevention and environmental issues.	
Current situation of parameter	Improved notion of risk prevention, environmental risks and health related issues because of project activity.	
Estimation of baseline situation of parameter	Poor notion of risk prevention, use of protective clothing, environmental risks and other health related issues.	
Future target for parameter	8	
Way of monitoring	How	Registration of external employees receiving health benefits or receiving health/risk prevention or environmental risks trainings, in the Project database system of the mill. Information will include date, participants, content and any examination/certification.

	When	yearly consolidation in the Project database
	By who	Reinaldo César, wood management

No	3	
Indicator	Human and institutional capacity	
Mitigation measure	No mitigation measure required	
Chosen parameter	a). n.º of initiatives and resources made available for local community project b) n.º visits to the project activity of Melhoramentos Papeis	
Current situation of parameter	a) The mill is participating in school projects to help finance some investments. 100,000 (R\$) has already been made available for investments in schools. b) there is little knowledge about emission reduction projects and climate change issues amongst the general public	
Estimation of baseline situation of parameter	a) poor educational infrastructure for students in Caieiras and need for community based projects for low income people b) Poor knowledge amongst local population over climate change issues	
Future target for parameter	a) 1 new social community project will be proposed b) 3 visits to the project activity of Melhoramentos Papeis	
Way of monitoring	How	a) Registration of the amount of investments, n.º of projects and resources made available for community initiatives b) all visits to the Project activity will be registered in the Project database
	When	a) yearly consolidation in the Project database b) project database will be updated after each visit
	By who	a) Fernanda Santini, Environmental Analyst b) Fernanda Santini, Environmental Analyst

No	4
Indicator	Quantitative employment and income generation

Mitigation measure		No mitigation measure required
Chosen parameter		Number of jobs created by the renewable energy Project Activity and increase in level of income
Current situation of parameter		Suppliers and sub-contractors are increasing activity because of Project Activity
Estimation of baseline situation of parameter		Limited job and income creation for suppliers and sub-contractors
Future target for parameter		8 new employments at suppliers and sub-contractors and increased income for 25 % of the suppliers.
Way of monitoring	How	Measurement of the number of employments created and the increase in level of income because of the project activity, through a questionnaire given to the biomass suppliers and sub-contractors.
	When	Yearly consolidation of job creation and the yearly questionnaire results. After that, updating of database.
	By who	Reinaldo César, wood management

No	5
Indicator	Balance of payments and investment
Mitigation measure	No mitigation measure required
Chosen parameter	a) Total investments done (R\$) for the Project Activity  b) Quantity of natural gas that would have been used in the absence of the project activity
Current situation of parameter	a) investments have been made in a renewable energy unit  b) regional biomass is being used to produce thermal energy
Estimation of baseline situation of parameter	a) investment in fossil fuel thermal generation unit  b) fossil fuel (natural gas) is imported to produce thermal energy
Future target for parameter	a) R\$ 11,500,000 (including already made investments in boiler and auxiliary equipments)  b) Approx. 100 Gwh/year
Way of monitoring	a) Total investments done (R\$) for the Project Activity according

		<p>to supplier invoices</p> <p>b) Comparison of the thermal energy produced by the project activity to the amount of equivalent natural gas necessary to produce the same amount of thermal energy.</p>
	When	<p>a) Yearly consolidation</p> <p>b) Yearly consolidation based on thermal energy generation of biomass</p>
	By who	<p>a) Claudio Bola, Financial Department</p> <p>b) Claudio Antonio Junior, Head of Processes and Utilities</p>

No	6
Indicator	Technology transfer and technological self-reliance
Mitigation measure	No mitigation measure required
Chosen parameter	<p>a) Number of people that receives training to use the new technology connected with the biomass boiler (biomass management, the boiler itself, auxiliary equipments, the sludge driers etc.) or that receives training to improve their wood processing and/or forest management skills</p> <p>b) progress of the cooperation programme for the valorization of biomass ash</p>
Current situation of parameter	<p>a) Trainings have already been undertaken</p> <p>b) initial contact taken with universities and private companies interested in a joint research programme</p>
Estimation of baseline situation of parameter	<p>a) No training would have been performed for state-of-the-art biomass processing methods, biomass management, biomass boiler management/maintenance and for the sludge presses.</p> <p>b) no research would have been undertaken to examine alternative valorization of the residues produced at the paper mill.</p>
Future target for parameter	<p>a) 10 people receive training in biomass management, boiler management/maintenance, forestry or biomass processing methods, use and maintenance of the sludge driers</p> <p>b) A report will be generated with various possible solutions for the valorization of produced ash.</p>

Way of monitoring	How	<p>a) Registration in Project database system of people attending training in biomass management, boiler management/maintenance, forestry or biomass processing methods, use and maintenance of the sludge driers. Information will include date, participants, content and any examination/certification.</p> <p>b) Drafting of a report on the process of the cooperation programme</p>
	When	<p>a) Yearly consolidation</p> <p>b) Yearly consolidation of research efforts and results</p>
	By who	<p>a) Adauto Ferreira, Forestry Attendant and Claudio Antonio Junior, Head of Processes and Utilities</p> <p>b) Ronald Cordero, BCTMP Mill Manager</p>

#### Additional remarks monitoring

### Additional remarks monitoring

The questionnaire will be given to 10 biomass suppliers representing 70 % of the total biomass supply for the boiler.

A centralized document storage will be done containing information about all monitoring parameters and results

## SECTION H. Additionality and conservativeness

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This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### H.1. Additionality

N/A

## H.2. Conservativeness

N/A

**ANNEX 1      ODA declaration**

**To be added.**