

Santiago, October 20, 2008

Dear Members of the Executive Board:

The Project Proponent has received the notification from the Secretariat that our CDM project the “Valdivia biomass power plant” has received 3 requests for review from EB members. These requests have raised the following issues:

1. The PP/DOE should clarify how the various stated barriers are prohibitive with proper justification and reliable evidence, considering the fact that the project has been in operation since 2004.
2. The PP/DOE are requested to provide evidence of consideration of the CDM prior to project start date and of continuing and real actions were taken to secure CDM status for the project activity in parallel with its implementation (EB41, Annex 46, paragraph 5(b) guidance).
3. The PP/DOE are requested to explain and substantiate how the measured EFburning, CH₄,k,y of the project can be representative for the whole year given that the measurement was taken only within one week.
4. The PP/DOE are requested to further clarify how proper monitoring of EFburning,CH₄,k,y can be made with regards to the requirements of the approved monitoring methodology.
5. The PP/DOE are requested to clarify how local stakeholders are consulted on the benefits of the CDM.

In the paragraphs below, the Project Proponent will provide a response to each of these issues.

Issue N° 1

In section B.5, Step 3: Barrier Analysis, the Project Proponent provides a detailed barrier analysis of the Valdivia CDM project activity. It mentions barriers related to:

1. Investment,
2. Technology,
3. Prevailing practice,

4. Cultural and
5. Entry in the electric power industry

In each case, the project proponent provided a detailed explanation and reliable and solid evidence in the validated PDD (see pages 31 to 37 of the Valdivia PDD).

In the first case, the evidence consisted in the economic penalties related to participating in the electric power industry. These penalties correspond to real fines from the Chilean authorities.

In the second case, the technical barriers were explained and justified in detail in the validated PDD. Additional support can be found in publicly available studies¹ of the pulp industry.

In the third case, it was verified that the Valdivia biomass power plant project activity was “a first of a kind” project in Chile, since by the time the Valdivia project was built there was no other player in the pulp industry in Chile that had a pulp mill like the Valdivia pulp mill. No other pulp mill in Chile operated with such a high-pressure steam data (85 bar, 480°C) and was able to generate such a considerable amount of surplus power to the grid (61 MW). Still today, there is no other pulp mill in Chile (including registered CDM project activities) capable of generating such a surplus of electric power to the grid.

The cultural barrier was explained in the PDD and can be supported by the fact that currently, the Project Proponent only has 30% of its available power capacity engaged in long-term power sale contracts. The usual standard in the power sector in Chile is higher than 60%.

Finally, all the barriers mentioned related to the entry to (and participating in) the electric power industry in Chile were supported by the corresponding outstanding laws and regulations.

In all cases, the evidence was duly reviewed and checked by the auditors during the validation process.

Now, in order to address the extent to which the barriers presented in the PDD are “prohibitive considering the fact that the project has been in operation since 2004”, the Project Proponent would like to mention the following:

1. The various stated barriers are deemed prohibitive by the Project Proponent because there are no other non-integrated bleached Kraft pulp mills in Chile (except for the Nueva Aldea pulp mill by Arauco, which is a registered CDM project activity) that use a high-pressure recovery boiler, that is capable of generating such a surplus amount of power to the grid (40 to 60 MW) and that operates as a power plant in the grid. From this perspective, the Valdivia pulp mill falls

¹ Please see: Fredrik Bruno. 2001. Thermochemical aspect on chloride corrosion in Kraft recovery boilers. Corrosion 2001. Paper N° 04126. Available at: <http://www.nace.org/nacestore/assets/ConferencePapers/2001/01426.pdf>.

under the category of “first of a kind” project. Step 4 of the “Tool for the demonstration and assessment of additionality Version 03” further ratifies this, since according to the Common Practice Analysis, there are no other pulp mills in Chile other than the Nueva Aldea pulp mill capable of supplying a considerable surplus power to the grid. According to Step 4 of the additionality tool, this test complements the barrier analysis in this case and ratifies the case of additionality for the Valdivia project activity.

To further illustrate how prohibitive these barriers are, the Project Proponent would like to present an example. During September, 2004 the main competitor of Arauco in Chile built a new pulp mill line in the VIII Region of the country. This new pulp mill line had a similar capacity to the Valdivia’s pulp mill capacity and incorporated the latest technology available in the pulp industry (it was built according to the BAT, Best Available Technology in the pulp industry). Nevertheless, the new pulp mill used a lower steam data boiler and was not capable of even generating all the power required by the new pulp mill line itself. The new pulp mill line had to rely on the grid to source all its power requirements. Other pulp mills in Chile also share the same situation and are not capable of generating all the power they require, making them dependent on the grid. This case, however, is a good example since it is a more recent pulp mill than the Valdivia pulp mill.

2. The reason for which the Valdivia biomass power plant had been operating despite the prohibitive nature of the stated barriers is because the project biomass power plant is an intrinsic part of the Valdivia pulp mill and therefore must operate if the pulp mill operates. The Valdivia pulp mill is a non-integrated Kraft pulp mill that uses the Kraft cycle technology to produce bleached pulp. Under the Kraft cycle, the biomass power plant must burn all the black liquor to generate the heat and power required by the pulping process (e.g. for wood cooking in the wood digesters) and be able to recover the chemicals used in the cooking process in the wood digesters. According to this, once the project pulp mill was built, the Project Proponent had no other option than to operate the biomass power plant, with or without the implementation of the CDM project activity, unless the Project Proponent decided not to operate the pulp mill. In other words, the operation of the new biomass power plant was determined by the operation of the pulp mill rather than by the nature of the barriers faced by the associated CDM project activity.

Issue N° 2

According to EB41, Annex 46, paragraph 5(b) guidance, the Project Proponent must comply with the following elements:

- a) The project participant must indicate awareness of the CDM prior to the project activity start date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project. Evidence to support this would include, *inter alia*, minutes and / or notes related to the consideration of the decision by the Board of Directors, or equivalent, of the project participant, to undertake the project as a CDM project activity.
- b) The project participant must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Evidence to support this should include, *inter alia*, contracts with consultants for CDM/PDD/methodology services, Emission Reduction Purchase Agreements or other documentation related to the sale of the potential CERs (including correspondence with multilateral financial institutions or carbon funds), evidence of agreements or negotiations with a DOE for validation services, submission of a new methodology to the CDM Executive Board, publication in newspaper, interviews with DNA, earlier correspondence on the project with the DNA or the UNFCCC secretariat;

The Project Proponent would like to present the following evidence to support requirement 5 a). For the evidence presented below, the Project Proponent is Arauco.

- Arauco first considered the CDM principles in cogeneration initiatives in 1998. A study called “Estudio de Factibilidad de Cogenerar en Chile”² carried out by SERCOR S.A., a research company, subsidiary of Arauco explicitly considered the benefits related to power cogeneration: mainly higher efficiency and lower CO₂ emissions. It must be noted that unlike the environmental regulation in other countries, the Chilean regulation does not consider CO₂ a pollutant and therefore, does not contemplate any emission restriction at all. As a result of this and other subsequent studies in the coming years, Arauco introduced the sustainability criteria in power generation and made it part of its Environmental Corporate Policy of Sustainable Development. As a highly integrated conglomerate in the forest industry, Arauco consistently and systematically applied this policy throughout the business areas in which the company participates: forest management, wood processing (sawmills), hardboard / MDF / plywood panel manufacturing, pulp producing and power generation.

Evidence that explicitly mentions Arauco’s Environmental Corporate Policy and its compromise towards sustainable development in all its business units can be found in Arauco’s 1997 to 2006 Annual Reports and the Environmental and Social Responsibility Reports.

- Consistent with the above, Arauco’s annual report of 2001 (page 28) and 2002 (page 35), explicitly mentions the company’s permanent commitment towards realizing new investments related to

² “Feasibility Study of Cogeneration in Chile”, the English translation.

environmental mitigation projects in sensitive areas such as energy consumption and emission control among others.

- Arauco first considered the incentives of the CDM in 1999. In the study “Proyecto de fijación de carbono en plantaciones de Pinus Radiata en la VI y VII regiones, Chile”³, carried out by the FIA (Foundation for Agriculture Innovation). This study was a result of a shared initiative of FIA, CONAF (National Forestry Corporation) and Forestal Celco (an Arauco subsidiary related to forest management) and was aimed at developing a participative mechanism that allowed small land owners located in the coastal dry lands of the south of Chile to reforest abandoned and/or eroded lands. The study evaluated the financial feasibility of the reforestation program and explicitly considered the carbon revenues derived from the reforestation program. As a result of this initiative, Forestal Celco and later on, Licancel (an Arauco subsidiary related to pulp production) implemented the reforestation program. Since in those years the CDM was in its early beginnings, Arauco was unable to certify the emission savings from this reforestation project. As a result, the company maintained the reforestation program until 2002, the year in which it was no longer feasible to maintain the program without the economic incentives of the CDM.

Through the development of this project, Arauco demonstrates not only the awareness of the CDM at a corporate level (e.g. this project involved the participation of the forestry and pulp business units) before the starting date of the Valdivia CDM project, but also the company’s actual commitment with its Corporate Environmental Policy of Sustainable Development.

- The Valdivia EIA (Environmental Impact Assessment) explicitly establishes in page 1, that the Valdivia pulp mill project was conceived along the lines of sustainability development principles.

It must be mentioned that when the Valdivia EIA was presented to the Environmental Authorities, the awareness of the CDM among the Chilean Authorities was extremely low, therefore it was not possible for Arauco to make an explicit reference to the CDM in this official and public report. Since this situation changed in the subsequent years, Arauco was able to make an explicit reference to the CDM and its benefits in subsequent EIA studies⁴.

- In accordance with Arauco’s sustainable development policy, the company started implementing its cogeneration initiative under the CDM, consisting in the construction of a series of renewable biomass power generation projects in Chile:
 - In April 2001, Arauco started the construction of its first biomass power plant, the “Trupan Biomass Power Plant in Chile” (Ref. N° 0259). This plant became operational

³ “Carbon capture project from Radiata Pine plantation in the VI and VIII regions, Chile”, the English translation.

⁴ As an example, Arauco made an explicit reference to the CDM in the Nueva Aldea (phases 1 and 2) CDM project EIA.

in 2003 and the associated CDM project activity was successfully registered in June 06, 2006.

- In February 2002, Arauco started the construction of another biomass power plant, the “Valdivia biomass power plant”, which is currently in the process of obtaining registration in the CDM.
- In September, 2003, Arauco started building the “Nueva Aldea Biomass Power Plant Phase 1” (Ref. N°0258), which was successfully registered in March 31st, 2006.
- In July 2004, started building the “Nueva Aldea Biomass Power Plant Phase 2” (Ref. N° 0346), which was registered in June 2nd, 2006.

As can be seen above, the Valdivia biomass power plant is not an isolated CDM project initiative by Arauco, but actually the result of the implementation of Arauco’s Corporate Environmental Policy that embraced the CDM principles and considered the potential benefits of the CDM from the very beginning. This policy has been equally applied and enforced throughout all of Arauco’s business units.

- During 2002, SERCOR S.A. developed the study “Bonos de Carbono”⁵. This study dealt about the Kyoto Protocol, the CDM and the Carbon Market possibilities available at that time. This study was presented to members of the Arauco board of directors and contributed to foster the interest in the CDM and the Kyoto Protocol within the Arauco Group (Arauco and subsidiaries).
- Finally, Arauco would also like to present the evidence related to all the actions that were taken during the implementation phase of the Valdivia project activity, to demonstrate the importance of the CDM for the Valdivia project activity, as well as for the other biomass power generation projects undertaken by Arauco in that moment. Since this evidence is also pertinent to answer 5 b), it is shown below.

The Project Proponent would like to present the following evidence to support requirement 5 b), which demonstrates that Arauco took real actions to secure the CDM status not only for the Valdivia CDM project activity, but for all the biomass power plant project activities that conformed Arauco’s initiative in the CDM. This evidence corresponds to a period in which the Valdivia CDM project activity was being implemented. All the evidence mentioned here is supported by emails received / sent by Arauco and by official (signed) documents.

- In May, 2003, Arauco contacted a strategic consultant to support Arauco in the CDM project cycle process and provide information and guidance about the carbon market possibilities.
- In June 18th 2003, Arauco had its first meeting with Cantor CO2e.com to explore the possibilities of selling the CERs from Arauco’s CDM project initiative.

⁵ “Carbon Bonds”, the English translation.

- During July, 2003, Arauco contacted SGS (Mr. Marriott) by phone for a quotation on validation services from CDM projects. This information request was answered via email by Marco van der Linden (SGS) in July, 23, 2003.
- In July 22nd, 2003, Arauco contacted Mr. Rathje, the CDM quality manager of TÜV Anlagentechnik GmbH (member of the TÜV Rheinland Berlin Brandenburg GroupTUV) via email to request information about validation and verification services for Arauco's project initiative in the CDM. This mail was answered by Mr. Guenter Schock in July 23rd, 2003.
- In July 23rd, 2003, Arauco contacted Ms. Svetlana Morozova from Ecosecurities (in the US) to request information about CDM services (PDD writing) for Arauco's project initiative in the CDM. This information request was answered via email by Ms. Morozova in July 23rd, 2003. There was subsequent follow-up involving some technical information about Arauco's CDM biomass projects which was used later on by Ecosecurities to prepare a proposal for Arauco to develop the PDDs and selling the corresponding emission reductions. Subsequent contact with Ecosecurities was channeled through Ms. Paula Aczel in the UK.
- In July 22nd, 2003, Arauco contacted via phone and mail Mr. Douglas Milne from DNV requesting information for validation and certification services for Arauco's CDM project activities in the CDM. This email was answered by Mr. Milne in July 24th, 2003. Further contact with DNV was channeled through Mr. Einar Telnes and Mr. Michael Lehmann, both from DNV.

Since Arauco finally hired DNV to carry out the validation of its initiative in the CDM (the biomass power plants, including Valdivia), the contact with DNV has been maintained up to now in 2008.

- In July 30th, 2003, Arauco contacted via mail Ms. Monique Voogt from Ecofys to request information for validation and certification services for Arauco's biomass project activities in the CDM (Arauco's CDM project initiative). This mail was answered in July 30th, 2003 by Ms. Voogt.
- In July 30th, 2003, Arauco received the first proposal for PDD development and CER sales from Ecosecurities. The mail was sent by Ms. Paula Aczel. Subsequent contract versions were sent by Ecosecurities later on.
- In July 31th, 2003, Arauco received DNV's validation proposal for its biomass project activities in the CDM (Arauco's CDM project initiative). The email was sent by Michael Lehmann.

This proposal for Arauco's CDM projects (Arauco's initiative in the CDM, including the Valdivia CDM project) was finally signed in October 27th, 2004. The considerable delay (more than 1 year)

was due to the fact that it was not possible to have the first PDD (the Trupan project activity) and baseline methodology (NM 0081) written before this date. Please see below.

- In August, 7th, 2003, Arauco received Ecofys's CDM service proposal for its biomass project activities in the CDM (Arauco's CDM project initiative). The email was sent by Ms. Diane Phylipsen. There were subsequent emails with new versions of this proposal. There were also visits to Arauco's headquarters.
- In August, 8th, 2003, Arauco received a bundled proposal for developing Arauco's project activity initiative in the CDM. The proposal covered the following areas:
 - Strategic guidance in the CDM process. Urquidi & Riesco Law firm (Chile).
 - Technical development of CDM studies. Fundación Chile (Chile).
 - Sale of credits (CERs): CO2e.com (International broker)

At a later stage, this proposal was de-bundled and each company offered its services separately to Arauco.

- During August, 2003, Arauco sent information about its project initiative to potential buyers through CO2.com. As a result of this information, Arauco started negotiating a Term sheet for the sale of CERs from Arauco's biomass projects (Arauco's initiative in the CDM) with Tepco and Mitsui by the end of August, 2003.
- In October 9th, 2003, Urquidi & Riesco Law firm (strategic CDM consultant) sent a proposal for assisting Arauco in going through the CDM with its initiative in the CDM (Arauco's biomass projects). After a negotiation process, this contract was signed by both parties in December 5th, 2003.
- In October 10, 2003, Fundación Chile sent a proposal to Arauco for developing the technical studies required by Arauco's CDM project activities (Arauco's initiative in the CDM). Due to lack of competences and experience in the CDM, Arauco could not accept this proposal.
- In November 10, 2003, Poch Ambiental sent a proposal to Arauco for developing the technical studies required by Arauco's CDM project activities (Arauco's initiative in the CDM). After a negotiation process, this contract was signed by both parties in December 5, 2003. However, this contract was unilaterally terminated by Arauco in December 6th, 2004 (there is an official and signed document terminating the services), since the consultants proved to be unable to develop the baseline methodology and the PDDs for Arauco's biomass projects.
- During December, 2003, representatives from TEPCO (Mr. Hagiwara) and Mitsui (Mr. Ryoso and Mr. Ueno) came to Chile to visit Arauco and its initiative in the CDM (e.g. biomass projects):
 - On December 19th, 2003, TEPCO and Mitsui visited the Valdivia CDM project activity.

- In December 20th, 2003, TEPCO and Mitsui had a met Arauco's CEO to discuss about the possibilities of signing an ERPA.
- During February, 2004, Arauco started preparing the information required to obtain the LOA for the Trupan and the Valdivia CDM project activities (both projects, part of Arauco's project initiative in the CDM). The two projects were presented to the Chilean DNA in May, 25th, 2004 and the corresponding LOA was finally obtained in September 22nd, 2004.
- Due to the poor results obtained with the technical consultants hired by Arauco, Arauco decided to write a baseline methodology that would be suitable to its initiative in the CDM. As a result, Arauco presented the first consolidated methodology for grid-connected biomass projects, the NM0081, in October, 2004. The methodology was approved by the EB by the end of February, 2005 and resulted –together with the other approved baseline methodologies for biomass projects, in the ACM0006 (Version 01). Subsequently, Arauco had to ask for modifications and deviations in order to apply this methodology to its biomass CDM project activities (including Valdivia). A complete and dated sequence of facts on this respect can be found in pages 27 to 30 of the validated PDD.
- As a result of its experience and strategy in the CDM (outlined in pages 27 to 30 of the Valdivia PDD), Arauco created a dedicated area aimed at the development and management of its initiatives in the CDM. This business area started with one person in 2003 and currently counts with 3 people.

According to the above,

The Valdivia CDM project activity is a part of the initiative in the CDM undertaken by Arauco at a corporate level that consisted in the construction of several biomass power generation projects in Chile. Therefore, the Valdivia CDM project activity as well as the evidence presented for early CDM consideration should not be considered in an isolated way.

The Project Proponent is conscious that CDM requirements in the grounds of early consideration of the CDM in going forward with a project activity have become more stringent after the guidance provided by the EB in Annex 46 of EB 41. However, the Project Proponent believes there is enough evidence above that clearly shows that there was awareness of the CDM before Arauco implemented its initiative in the CDM and that the CDM was a key part of this initiative.

Arauco would like to remind the fact that by the date the Valdivia project was implemented there was very little knowledge about the rules of the CDM. In particular, there was no guidance about the Step 0 rules as there is today. This is relevant, since Arauco is a highly integrated forestry company in which many managers of Arauco's business units are members of the board in subsidiaries. This leads to a tightly-integrated interdependent management structure (flat organizational structure), which does not

require that all the decisions that are actually adopted or implemented by Arauco are necessarily explicitly documented in directors meeting reports or other type of official documents.

The Valdivia CDM project activity together with the Trupan CDM project activity (Ref. N° 0259) were the first two biomass project activities implemented by Arauco in the CDM and were both sent to the DNA for National Approval simultaneously. Unfortunately, it was not possible for Arauco to present the Valdivia project to validation earlier (see pages 27 to 30 of the PDD), regardless the fact there already was a signed contract with DNV for the validation of the Valdivia project activity. Given the prevailing circumstances in that moment, Arauco decided to present its biomass CDM project activities in a way that it would allow Arauco to gain experience, build capacities in the CDM and at the same time, present its biomass project to the CDM as fast as possible. This strategy made it possible for Arauco to present high-quality PDDs to the CDM. The Valdivia CDM project activity is a clear example of this, since the Valdivia project itself implies the simultaneous application of two project initiatives, each of which corresponds to a previously registered CDM project activity undertaken by Arauco⁶. Furthermore the Valdivia CDM project activity required Arauco to conduct several studies (e.g. emission factor selection, CH₄ emission factor measurement, biomass availability among others) in order to properly support, document and validate some emission factors, methodology choices and methodology scenarios used in the Valdivia project activity.

As a result, Arauco would respectfully request the EB members to consider the evidence above in light of the circumstances mentioned here in order to assess the earlier consideration of the CDM in this case. Most likely, an earlier presentation of the Valdivia project activity to the CDM would have encountered less stringent rules for early consideration of the CDM, but would have most certainly resulted in a much poor quality PDD, not only for the Valdivia project, but also for the other biomass project activities undertaken and presented by Arauco. According to several EB meeting reports, one of the most prevalent comments by the EB during the period Arauco was developing its PDDs was the poor quality of the documents of the project activities presented to the CDM. Arauco seriously considered this comment by the EB in developing its strategy in the CDM, and therefore made the decision to present high-quality documents for all its CDM project activities. This is part of the evidence that shows how seriously Arauco considered the CDM in its project activities.

Arauco really hopes the strategy used in the presentation of the Valdivia project activity to the CDM does not undermine the validity of the evidence presented here for the early consideration of the CDM, making the Valdivia CDM project activity unviable in the CDM.

⁶ The Trupan CDM Project activity used baseline scenario N° 3 of the ACM0006 and the Nueva Aldea Phase 2 project activity used baseline scenario N° 4 of the ACM0006. The Valdivia CDM project activity had to use a combination of these two baseline scenarios. This required a deviation of the ACM0006 methodology. For further details, please see pages 27 to 31 of the Valdivia PDD.

Issue N° 3

To measure the EFburning, CH₄,k,y, the Project Proponent hired the USDA Forest Service, Rocky Mountain Research Station (from now on, Forest Service). This institution (or for these purposes, consultant) was chosen due to its wide experience in doing this kind of analysis world-wide. To answer this request, the Project Proponent decided to contact the Forest Service once again and ask them their expert opinion about question raised by the EB.

The following mail, sent by the Forest Service, presents the reasons for which the measured value and the corresponding standard deviation are representative for the entire year despite they were determined from measurements taken during one week:

(This is a copy-paste of the word document submitted by Mr. Wei Min Hao and Mr. Stephen Baker from the U.S. Forest Service. The email is totally available upon request).

Beginning of the answer:

Comments on “Methane Emissions from Sawdust/Bark Fires in Central Chile”

Wei Min Hao and Stephen P. Baker
U.S. Forest Service, RMRS, Fire Sciences Laboratory, Missoula, Montana, USA

The objective of this study was to quantify the emission factor of methane (EFCH₄) produced during uncontrolled, open-air burning of piled sawdust/bark residue, which was used as fuel for two power plants of Arauco Generación S.A. The average methane emission factor, calculated from a total of 62 emission samples taken during the period of September 7-14, 2006, was 13.7 g CH₄ /kg biomass burned with a standard deviation of 3.0 g/kg.

The results of emission factors of methane and the combustion efficiency (MCE) are within a narrow range under a wide fluctuation of weather conditions during this study. The combustion efficiency is an indicator of combustion conditions.

We have completed and published a comprehensive study of the emissions of atmospheric trace gases from residual smoldering in the southeastern and western United States and Alaska. We have also co-authored a similar comprehensive report on residual smoldering combustion specifically for Alaska. The following table summarizes the methane emission factors and the combustion efficiency we have measured in these studies.

| Fuel Type | EFCH ₄ (g/ kg) | MCE |
|-----------------------------|------------------------------|------|
| Western U.S. conifer forest | 14.7 | 0.80 |
| All Woody fuels | 17.8 | 0.77 |
| Alaska Duff fuels | 11.0 | 0.80 |

It can be seen that the average value of 13.7 g CH₄ /kg measured in Chile is consistent with the results from other studies with natural fuels including duff and litter.

Our results of methane emission factors from burning piled sawdust/bark residue in Chile in eight days in September 2006 are likely to be representative throughout the year for the following reasons:

- 1) The experiments were conducted under a wide range of weather conditions.
- 2) The results of methane emission factors had a narrow standard deviation of $\pm 22\%$ under a wide range of weather and combustion conditions.
- 3) The methane emission factors derived from the Chilean experiments are consistent with the results of other studies for other fuel types in southeastern and western U.S. and Alaska. The U.S. results are from natural conditions during the fire season and would be expected to have lower methane emission factors than for large densely packed piles. The fact that both sets of results are similar indicates that the methane emission factor for burning sawdust pile in Chile is a conservative estimate.
- 4) The Chilean samples were taken in spring, when combustion conditions are at a median level. Therefore it is appropriate to use the results derived from this period to estimate total methane emissions for the whole burning season within the reported standard error range.
- 5) The actual piles are much larger and poorly aerated compared to our experiment piles, indicating that our measured methane emission factors from the smaller, better aerated piles should be much lower than what is actually occurring in the field.”

End of the answer.

Considering the answer by the experts above, the proposed CH₄ emission factor can be deemed reasonably representative for the entire year. In addition, considering that in the absence of the project activity a significant portion of the unused biomass would not be burned in an uncontrolled manner, but actually left to natural decay in piles under mostly anaerobic conditions (implying a much higher CH₄ emission factor than the one obtained for uncontrolled burning in the open-air), the proposed CH₄ emission factor represents a highly-conservative baseline for the additional biomass from forestry and industrial operations used by the project activity. This ensures a highly conservative emission reduction calculation for the project activity⁷.

⁷ This is explicitly mentioned in the last two paragraphs of page 24 of the Valdivia PDD.

Issue N° 4

According to the first paragraph of page 42/63 of the ACM0006 (Version 05), used in the Valdivia project activity, the Project Proponent is allowed to undertake measurements or use reference values. Considering that the default value proposed by the methodology was unreasonably low and that the associated level of uncertainty made the factor even lower, the Project Proponent decided to conduct a measurement for the CH₄ emission factor for uncontrolled burning of the biomass type used in the project power boiler. As a result, the undertaking of this measurement is consistent with the baseline methodology.

According to page 59/63 of the ACM0006 (Version 05), in the Monitoring Methodology section, the EF_{burning,CH₄,k,y} must be monitored and the measurement frequency must be once at the start of the project activity. Considering that the emission factor has already been measured by an experienced and reputed consultant, the Project Proponent believes that the EF_{CH₄,k,y} has been measured and monitored totally in accordance with the requirements of the ACM0006 (Version 05), which is the baseline methodology used in the Valdivia project activity.

Issue N° 5

According to Section E.1 of the “Guidelines for completing the project design document (CDM-PDD), and the proposed new baseline and monitoring methodologies, Version 06.2” and sections D and E of the “Project Design Document Form (CDM PDD) – Version 03.1” used for the presentation of the Valdivia CDM project activity, the Project Proponent understood that in section E of the PDD the Project Proponent should describe the way in which the local stakeholders were consulted about the possible environmental impacts related to the implementation of the project activity rather than on the benefits of the CDM associated to the project activity itself. As a result, the information provided in section E of the Valdivia PDD was mostly aimed at providing an answer to the first interpretation of the information request rather than to the second one.

The following paragraphs below provide a detailed explanation on the way in which the public consultation process of the Valdivia CDM project was carried out, including the impact of the CDM in the context of the proposed project activity.

As in the other early CDM project activities implemented by the Project Proponent, all aspects of the Valdivia pulp mill project, including those related to the implementation of the CDM project activity, were covered in the Valdivia mill Environmental Impact Assessment study. However, considering that this study was carried out in a moment in which the awareness of Climate Change was low, the Kyoto

Protocol had not been ratified yet and the CDM was not in place and functional, the Project Proponent could not explicitly mention the CDM in the public consultation process. Despite this, all the environmental impacts of the Valdivia pulp mill project, including those related to the implementation of the project activity were duly addressed and dealt with through the Environmental Impact Assessment process.

During 2004, the Project Proponent presented the Valdivia project (together with the Trupan project activity) to the Chilean DNA for national approval. Since this information was made public, the Valdivia project activity was presented together with other prospective CDM project activities in several seminars in Chile. Some of these presentations are still available in the Chilean DNA web page.

At the same time, the Project Proponent started participating in several seminars and congresses related to renewable power generation and the CDM in Chile. In particular, the Project Proponent participated in two congresses in the same region in which the Valdivia project is located. The presentations dealt with biomass power generation technology in the forestry industry, the Kyoto Protocol, the impact of the CDM in biomass power generation projects in Chile and the Project Proponent's initiative in the CDM.

Most of the attendants to these congresses were local people of the same region the Valdivia CDM project activity was located. In each congress, the attendants were able to address the expositor orally or in writing after the presentation / congress.

All the information provided in these (and other) congresses was further analyzed and published by the local press (e.g. mentioning the Valdivia pulp mill as an example), as the awareness of Climate Change and the Kyoto Protocol increased locally, in the region in which the Valdivia CDM project was implemented and in the country.

In addition to the above, the Project Proponent implemented the following communication channels between the Valdivia pulp mill management and the local community:

- Since 2004 an “open-door” policy for all members of the local community who wished to visit the Valdivia pulp mill.
- Since 2006, a free 800 phone number aimed at receiving all concerns from the local community about the Valdivia pulp mill operation.

As a result of these measures, the Valdivia pulp mill has been visited by approximately 35,000 people:

| | 2004 | 2005 | 2006 | 2007 | 2008 | Total |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|---------------|
| N° of visitors to the Valdivia mill | 1,116 | 8,968 | 14,884 | 7,768 | 2,677 | 35,413 |

Visitors have included local authorities, schools, universities, communal organizations among others. In each visit, the Valdivia management shows a video about the Valdivia mill which explicitly refers to the Valdivia CDM project activity, namely the capacity of generating surplus power to the grid using renewable biomass.

The Valdivia plant has also received 91 phone calls to date, including some requesting permission for a plant visit, but none related to the implementation / operation of the Valdivia CDM project activity itself.

To date, neither the Project Proponent nor the Valdivia plant management has received any kind of comment from the local community related to the Valdivia CDM project activity and / or about the benefits derived from the prospective CDM status of the Valdivia project activity. The same situation happened during the one-month public consultation process, during the validation of the Valdivia project.

According to the above and considering the Project Proponent's previous experience on this matter with its other successfully registered CDM project activities, the Project Proponent considered that there had been enough instances to inform the local stakeholders about the CDM in the context of the Valdivia project activity and enough instances to receive comments from the local stakeholders about it. For this reason, the Project Proponent did not considered carrying out a new public consultation process just to address the benefits of the CDM in the context of the Valdivia project activity.

According to the answers presented above, the Project Proponent truly believes that the "Valdivia biomass power plant" project activity complies with all the requirements to fully qualify in the CDM. It clearly aims at sustainable development in Chile by means of generating renewable and clean energy in a way that does not happen under a conventional business practice in any forestry-related industry in Chile, even with today's context of much higher power prices. For these reasons, the Project Proponent would respectfully like to request the Executive Board to please authorize the registration of the "Valdivia biomass power plant" as a CDM project activity in its 44th meeting.

Sincerely,

Christian A. Patrickson
Celulosa Arauco y Constitución S.A.