



Validation Report

Manaus Landfill Gas Project

CDM.Val0377

May 29th, 2006

SGS Climate Change Programme

SGS United Kingdom Ltd

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ANNEX 1

REPORT ON COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

Manaus Landfill Gas Project

Project No. CDM.Val0377

Date: 29/05/2006

1 INTRODUCTION

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project activity shall be made publicly available and the DOE shall make invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This report describes this process for this particular project.

2 PROJECT DETAILS

2.1 Project title

Manaus Landfill Gas Project.

2.2 Description of how and when the PDD was made publicly available

The Project Design Documents and its annexes were made publicly available from 07 Dec 2005 until 05 Jan 2006 on the website

<http://cdm.unfccc.int/Projects/Validation/view.html?ProjectId=V3J5CBQWGEM8NWLB5O2NU60ZSPZ7QA&OE=SGS-UKL> and comments were invited through the UNFCCC CDM homepage.

3 COMMENTS RECEIVED

3.1 Description of how comments were received and made publicly available

Comments could be submitted through a web interface or by email or fax.

As per procedures on public availability of the CDM project design documents and for receiving comments as referred to in paragraphs 40b and 40c of the CDM modalities and procedures, any received comments are displayed from the end of the 30 days commenting period, at the website listed in section 2.2.

3.2 Compilation of all comments received

Follow the comment received during 30 days commenting period:

Comment I:

As in Brazil, public auction is required for public entities to contract services, concessions, partnerships, and other, is absolutely necessary to provide answers to several questions that are not clear regarding :Manaus Landfill Gas Project", as follows:

1. In which date was the public auction that contracted CONESTOGA-ROVERS & ASSOCIADOS Engenharia S/A?
2. What is the type of the contract? Services Provider, concession, partnership or other?

3. What were the contract conditions established for remunerating CONESTOGA-ROVERS & ASSOCIADOS Engenharia S/A?
4. In which date was the public auction that established a partnership, or contracted BGC International?
5. What is BGC International role as project participant and what are the remunerating basis and criteria for remunerating on this contract?
6. How Belém Municipality intend to commercialize its CERs ?
7. Is it clear for the municipality that they are not authorized by local legislation to commercialize CERs prior to its emissions?
8. As it's a public landfill, its mandatory having public information regarding all procedures and assure it's compliance to local laws.
9. Must be on the web site, not only the PDD but, Auction documents and contracts signed between the players involved.

4 EXPLANATION OF HOW COMMENTS HAVE BEEN TAKEN INTO ACCOUNT

Answer for comment I:

1. In which date was the public auction that contracted CONESTOGA-ROVERS & ASSOCIADOS Engenharia S/A?

Conestoga-Rovers & Associados Engenharia S/A is not involved in the Manaus Landfill Gas Project. An entity named Conestoga-Rovers & Associates Capital Limited is involved in this project. There was no public auction for this project, as the contract for the project is with a private entity which has an existing contract with Manaus Municipality.

2. What is the type of the contract? Services Provider, concession, partnership or other?

The contract is a concession to the rights for the biogas.

3. What were the contract conditions established for remunerating CONESTOGA-ROVERS & ASSOCIADOS Engenharia S/A?

Conestoga-Rovers & Associados Engenharia S/A is not involved in the Manaus Landfill Gas Project. An entity named Conestoga-Rovers & Associates Capital Limited is involved in this project. Revenue for Conestoga-Rovers & Associates Capital Limited will be generated solely from the sale of certified emission reductions (CERs). No public money will be used in any fashion to remunerate Conestoga-Rovers & Associates Capital Limited. Manaus Municipality will not provide money to the project but will receive a royalty based on the CERs.

4. In which date was the public auction that established a partnership, or contracted BGC International?

There was no public auction for this project.

5. What is BGC International role as project participant and what are the remunerating basis and criteria for remunerating on this contract?

BGC International is involved as an Annex I party participant and is involved in the CER transaction associated with the project.

6. How Belém Municipality intend to commercialize its CERs ?

Conestoga-Rovers & Associates Capital Limited will commercialize CERs from the project and Manaus Municipality will receive a royalty for each CER.

7. Is it clear for the municipality that they are not authorized by local legislation to commercialize CERs prior to its emissions?

Manaus Municipality will not commercialize the CERs. Conestoga-Rovers & Associates Capital Limited will commercialize CERs from the project and is fully cognizant of the international legislation regarding certification of CERs.

8. As it's a public landfill, its mandatory having public information regarding all procedures and assure it's compliance to local laws.

The project participants will undertake a public consultation session with the local municipality in January 2006. All required stakeholders will be invited and the required advertisements will be delivered beforehand. Additionally, the project participants will complete the documentation required by the host country with respect to environmental and labour laws.

9. Must be on the web site, not only the PDD but, Auction documents and contracts signed between the players involved.

Contracts are not necessary components of the PDD, but will be reviewed by a Designated Operational Entity (DOE) during the validation process to ensure that the requirements for a CDM project activity are met. Conestoga-Rovers & Associates Capital Limited will provide these documents to the DOE as part of the validation process and the results of the DOE assessment will be available in the validation report, which will be publicly posted on the UNFCCC website.



ANNEX 2

LIST OF DOCUMENTS ATTACHED

Manaus Landfill Gas Project

Project No. CDM.Val0377

Date: 29/05/2006

- /1/ Annex 1: Report on Comments by Parties, Stakeholders and NGOs
- /2/ Annex 2: Comprehensive list of documents attached
- /3/ Annex 2: List of persons interviewed
- /4/ Annex 4: Validation Protocol (UK.AU4.CDM.Val0377)
- /5/ Annex 5: Overview of findings (UK.Findings.CDM.VAL0377)
- /6/ Annex 6: Answers from local assessor
- /7/ Annex 7: Validation Report (UK.AR6.CDM.VAL0377)
- /8/ Annex 8: Modalities of communication
- /9/ Letter of Approval from the Government of Brazil
- /10/ Letter of Approval from the Government of United Kingdom
- /11/ Letter of Approval from the Government of Canada



ANNEX 3

Overview of documentation that has
been reviewed and list of persons
interviewed

MANAUS LANDFILL GAS PROJECT

Project No. CDM.Val0377

Date: 29/05/2006

This document is an Annex to the validation report for CDM project activity registration. It gives overview of documentation that has been reviewed and names of persons that have been an interviewed as part of the validation.

List of documents reviewed

- /1/ Project Design Document, Manaus Landfill Gas Project, version 01, 2 December 2005; version 02, 3 April 2006; version 03, 15 May 2006.
- /2/ Approved consolidated baseline methodology ACM0001 - "Consolidated baseline methodology for landfill gas project activities" (Version 2, 30 September 2005).
- /3/ Approved consolidated monitoring methodology ACM0001 - "Consolidated monitoring methodology for landfill gas project activities" (Version 2, 30 September 2005).
- /4/ Approved consolidated baseline and monitoring methodology ACM0002 – "Consolidated methodology for grid connected electricity generation from renewable sources" (version 5, 3 March 2006).
- /5/ Tool for the demonstration and assessment of additionality (28 November, 2005).

List of persons interviewed

	Name and position	Company name	Date interviewed
/1/	Guy L. Treadwell / Project Manager	CRA - Conestoga-Rovers & Associates	12 and 13 December 2005
/2/	Carlson Cabral / Project Coordinator	CRA - Conestoga-Rovers & Associates	12 and 13 December 2005
/3/	Mauro Mansur / Director	Tumpex	12 and 13 December 2005

Annex 4 - Validation Protocol

This validation protocol is designed to ensure that the project meets the requirements for CDM projects that are detailed in paragraph 37 of the CDM modalities and procedures. Each requirement is covered in a separate table. The following requirements are discussed in this protocol:

Requirement	Description	
Participation requirements	The participation requirements as set out in Decision 17/CP.7 need to be satisfied	Covered in table 1
Baseline and monitoring methodology	The baseline and monitoring methodology complies with the requirements pertaining to a methodology previously approved by the Executive Board	Baseline methodology is covered in table 2 Monitoring methodology is covered in table 4
Additionality	The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity	Covered in table 3
Monitoring plan	Provisions for monitoring, verification and reporting are in accordance with relevant decisions of the COP/MOP	Covered in table 5
Environmental impacts	Project participants have submitted to the designated operational entity documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken an environmental impact assessment in accordance with procedures as required by the host Party;	Covered in table 6
Comments by local stakeholders	Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the designated operational entity on how due account was taken of any comments has been received;	Covered in Table 7
Other requirements	The project activity conforms to all other requirements for CDM project	Covered in Table 8

activities in relevant decisions by the COP/MOP and the Executive Board.

Small sale projects and AR projects have specific requirements, which are covered in Table 9-11. Small scale SSC projects have special requirements, which might deviate from the requirements of other CDM projects. These requirements are tested in table 9. Please note that some questions in table 9 overlap with questions in the other tables. Where the questions in table 9 contradict or overlap questions elsewhere in the checklist, the questions in table 9 shall prevail. For the validation of small scale projects, assessor is required to address the questions in table 9 first before starting with the questions in the other tables.

Further remarks on the use of this document:

- text in *italic blue* is meant as guidance for the assessor
- MoV = Means of Verification, DR= Document Review, I= Interview

This protocol should be adapted as required. For example, if the project is not a small scale project or an AR project, some tables can be deleted.

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website) All CDM project activities

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
1.1 The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	DR	PDD	No Letter of Approval from an Annex I Canada and UK country has been provided. CRA applied for Canadian DNA (Designated Operational Entity) provisional approval in December 2005. A provisional letter of approval was issued on January 11, 2006. CRA will apply for a final Canadian letter of approval upon issuance of the validation report. One of the required documents to apply for the United Kingdom letter of approval is the host country letter issued	CAR 1	

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
			by the Brazilian DNA. CRA will apply for the United Kingdom letter of approval as soon as the host country letter is issued.		
1.2 The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	DR	PDD	No Letter of Approval by host country (Brazil) has been submitted to the validator, this will only be obtained on delivery of a validation report. CAR 2 was cancelled.	Send the validation report to DNA.	
1.3 All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	DR	PDD	Yes, Brazil – date of ratification 23-August-2002 Canada – date of ratification 17-December-2002 UK - – date of ratification 31 - May - 2002	Ok	Ok
1.4 The project results in reductions of GHG emissions or increases in sequestration when compared to the baseline; and the project can be reasonably shown to be different from the baseline scenario	DR	PDD ACM 001	Yes, The current practice at Manaus landfill is to allow the uncontrolled release of LFG into the atmosphere. The collection and destruction of the methane in the project activity will reduce GHG emissions.	Ok	Ok
1.5 Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days (45 days for AR projects), and the project design document and comments have been made publicly available	DR	UNF CCC site	PDD publicly available until 05 January 2006. http://cdm.unfccc.int/Projects/Validation/view.html?ProjectId=V3J5CBQWGEM8NWLBSO2NU60ZSPZ7QA&OE=SGS-UKL One comment received. The answer and the comment received are described in the annex 1 of the validation report.	Ok	Ok
1.6 The project has correctly completed a	DR	PDD	Yes. The project used the current version.	Ok	Ok

REQUIREMENT	MoV	Ref	Comment	Draft finding	Concl
Project Design Document, using the current version and exactly following the guidance					
1.7 The project shall not make use of Official Development Assistance (ODA), nor result in the diversion of such ODA	DR	PDD	No ODA has been provided for this project.	Verify	Ok
1.8 For AR projects, the host country shall have issued a communication providing a single definition of minimum tree cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?			N/A		
1.9 Does the project meet the additional requirements detailed in: Table 9 for SSC projects Table 10 for AR projects Table 11 for AR SSC projects			N/A		
1.10 Is the current version of the PDD complete and does it clearly reflect all the information presented during the validation assessment.	DR	PDD	The current version is used.	Ok	Ok
1.11 Does the PDD use accurate and reliable information that can be verified in an objective manner?	DR	PDD	All information in the PDD was verified.	Verify	Ok

Table 2 Baseline methodology (ies) (Ref: PDD Section B and E and Annex 3 and AM) Normal CDM projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
2.1 Does the project meet all the applicability criteria listed in the methodology	PDD AM	DR	Yes. ACM 0001 is applicable to landfill gas capture project activities, where the baseline scenario is the partial or total atmospheric release of the gas and the project activities include the situation where the captured gas is used to produce energy. ACM0002 shall be used to electricity generation from landfill gas capture.	Ok	Ok
2.2 Is the project boundary consistent with the approved methodology	PDD AM	DR	Yes. The project boundary is delineated by the area of the Manaus landfill and Manaus power grid. It is consistent with ACM0001 and ACM0002.	Ok	Ok
2.3 Are the baseline emissions determined in accordance with the methodology described	PDD AM	DR	Yes. ACM 0001 defines that project proponents should provide an ex ante estimate of emissions reductions, by projecting the future GHG emissions of the landfill using verifiable methods. The total methane emissions in the absence of the project activity are estimated based on the waste tonnage of the landfill using a United States Environmental Protection Agency (USEPA) first-order kinetic model for landfill gas.	Ok	Ok
2.4 Are the project emissions determined in accordance with the methodology described	PDD AM	DR	Yes. As described in the PDD, the landfill gas not captured by the landfill gas collection and flaring system cannot be monitored, as this emission is diffused over the landfill. The amount of landfill gas collected and destroyed by combustion can be monitored using a flow meter. Project emissions are thus comprised of the quantity of methane collected and not flared due to flaring inefficiency, and this	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>amount is subtracted from the measured amount of collected methane (expected efficiency is upwards of 99.99%).</p> <p>In addition, ACM0001 and ACM0002 defines that possible CO2 emissions should be accounted as project emissions. In the project activity, electrical consumption is associated with the equipment required to draw and process landfill gas. Electrical requirements of the power plant can be satisfied by the generated electricity.</p>		
2.5 Is the leakage of the project activity determined in accordance with the methodology described	PDD ACM	DR	<p>No leakage effects need to be accounted under ACM0001 Emissions from electricity consumption is calculated and subtracted from the project emissions reductions.</p> <p>Who the project estimates 120kW that correspond to electrical consumption of 1,051Mwh/year.</p> <p>Those values are estimated and the correct electricity consumption associated with the project will considered based in the monthly electrical bills, as described in the PDD, annex 4. NIR 3 was closed out.</p>	NIR 3	Ok
2.6 Are the emission reductions determined in accordance with the methodology described	PDD ACM	DR	<p>Page 30 of the PDD: grid emission factor for Manaus= 0,6845 tCO2/MWh. How the EF was obtained. All information about this data was presented and the worksheet was verified. NIR 4 was closed out.</p> <p>The project doesn't calculate the operating margin emission factor. Why the project consider zero. The project can consider the operating margin as 0, as a conservative value, but the 0 need to be considered in the weighted average. The PDD was revised and the new version of the PDD provided the calculation of the operating margin, page 32 of the PDD presents the information used to calculate the simple operating margin</p>	<p>NIR 4</p> <p>CAR 5</p>	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			<p>according to methodology ACM0002. EF(operating margin)=0,8674 tCO₂/MWh. CAR 5 was closed out.</p> <p>How the build margin emission factor was calculated, provide formulas.</p> <p>The formula was provided and the data used to calculate the build margin. In the version 3 of the PDD a new value was provided, EF(build margin)=0.9534 tCO₂/MWh. The worksheet with data and formulas was verified. NIR 6 was closed out.</p>	NIR 6	

Table 3 Additionality (Ref: PDD Section B3 and AM) Normal CDM projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
3.1 Does the PDD follow all the steps required in the methodology to determine the additionality	PDD AM	DR	ACM0001 methodology requires the use of the “Tool for the demonstration and assessment of additionality”.	Ok	Ok
3.2 Is the discussion on the additionality clear and have all assumptions been supported by transparent and documented evidence	PDD AM	DR	<p>Present the study about IRR and how all data was obtained.</p> <p>The project presents how data was obtained. NIR 7 was closed out.</p>	NIR 7	Ok
3.3 Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	PDD AM	DR	Yes from doc review.	Ok	Ok
3.4 Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	PDD AM	DR	Yes from doc review.	Ok	OK

Table 4 Monitoring methodology (PDD Section D and AM) Normal CDM Projects only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
4.1 Does the project meet all the applicability criteria listed in the monitoring methodology	PDD AM	DR	Yes. ACM0001 is applicable to landfill gas capture project activities, where the baseline scenario is the partial or total atmospheric release of the gas and the project activities include situations where the captured gas is used to produce energy.	Ok	Ok
4.2 Does the PDD provide for the monitoring of the baseline emissions as required in the monitoring methodology	PDD AM	DR	No monitoring of baseline emissions is required; monitoring methodology is based on the direct measurement of the quantity of LFG captured, collected and destroyed by the gas engines and flare, according ACM0001. Monitoring methodology applicable to grid-connected electricity generation, according ACM0002.	Ok	Ok
4.3 Does the PDD provide for the monitoring of the project emissions as required in the monitoring methodology	PDD AM	DR	Yes.	Ok	Ok
4.4 Does the PDD provide for the monitoring of the leakage as required in the monitoring methodology	PDD AM	DR	No leakage needs to be accounted. CO2 emissions resulting from electricity consumption was accounted and deducted from the emission reductions.	Ok	Ok
4.5 Does the PDD provide for Quality Control (QC) and Quality Assurance (QA) Procedures as required in the monitoring methodology	PDD AM	DR	Yes.	Ok	Ok

Table 5 Monitoring plan (PDD Annex 4) Normal CDM Project activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
5.1 Monitoring of Sustainable Development Indicators/ Environmental Impacts	PDD	DR	Yes, see annex 4 of the PDD.	Ok	Ok
5.1.1 Does the monitoring plan provide the collection and archiving of relevant data concerning environmental, social and economic impacts?	PDD	DR	Yes.	Ok	Ok
5.1.2 Is the choice of indicators for sustainability development (social, environmental, economic) reasonable?	PDD	DR	Yes.	Ok	Ok
5.1.3 Will it be possible to monitor the specified sustainable development indicators?	PDD	DR	Yes.	Ok	Ok
5.1.4 Are the sustainable development indicators in line with stated national priorities in the Host Country?	PDD	DR	Yes.	Ok	Ok
5.2 Project Management Planning					
5.2.1 Is the authority and responsibility of project	PDD	DR	Yes. To be confirmed by local assessor. Verified during site visit.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
management clearly described?					
5.2.2 Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PDD	DR	Yes, PDD section D.4	Ok	Ok
5.2.3 Are procedures identified for training of monitoring personnel?	PDD	DR/I	Yes, PDD section D.4 and Annex 4. To be confirmed by local assessor.	Verify	Ok
5.2.4 Are procedures identified for emergency preparedness for cases where emergencies can cause unintended emissions?	PDD	DR	No. In case of flare downtime, the landfill gas would not be collected or combusted, and would be released to the atmosphere. This scenario would be equivalent to the baseline scenario, where the LFG produced at the landfill would undergo uncontrolled released to the atmosphere.	Verify	Ok
5.2.5 Are procedures identified for calibration of monitoring equipment?	PDD	DR/I	Specific calibration procedures are dependent on the actual equipment selected; however calibration of the equipment is required on a regular basis to ensure the quality and validity of the data. It is not implemented yet, but there is a plan for preparing an operation manual and procedures, including calibration.	Verify	Ok
5.2.6 Are procedures identified for maintenance of monitoring equipment and installations?	PDD	DR	It is not implemented yet, but there is a plan for preparing an operation manual and procedures, including maintenance of equipment.	Verify	Ok
5.2.7 Are procedures identified for monitoring, measurements and reporting?	PDD	DR	All data collected will be recorded for the permanent record. Both electronic and hard copies of the data will be maintained for auditing purposes, and for use in the	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			calculation of CERs.		
5.2.8 Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	PDD	DR	Yes. Procedures are not implemented yet, but there is a plan for preparing an operation manual and procedures (see PDD section D.4 and Annex 4).	Verify	Ok
5.2.9 Are procedures identified for dealing with possible monitoring data adjustments and uncertainties?	PDD	DR	Yes. Procedures are not implemented yet, but there is a plan for preparing an operation manual and procedures (see PDD section D.4 and Annex 4).	Verify	Ok
5.2.10 Are procedures identified for review of reported results/data?	PDD	DR	Yes. See item above	Ok	Ok
5.2.11 Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	PDD	DR	Yes. To be confirmed by local assessor. See item above	Verify	Ok
5.2.12 Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	PDD	DR	Yes.	Ok	Ok
5.2.13 Are procedures identified for corrective actions in	PDD	DR	Yes (section 3, annex 4)	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
order to provide for more accurate future monitoring and reporting?					

Table 6 Environmental Impacts (Ref PDD Section F and relevant local legislation) Normal CDM Project Activities only

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6.1 Has an analysis of the environmental impacts of the project activity been sufficiently described?	PDD	DR	Yes.	Ok	Ok
6.2 Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	PDD	DR	To be confirmed by local assessor. There are no requirements for an environmental impact assessment.	Verify	Ok
6.3 Will the project create any adverse environmental effects?	PDD	DR	No. No adverse impact identified.	Verify	Ok
6.4 Are transboundary environmental impacts considered in the analysis?	PDD	DR	No significant environmental impacts expected.	Verify	Ok
6.5 Have identified environmental impacts been addressed in the project design?	PDD	DR	No significant environmental impacts detected.	Verify	Ok
6.6 Does the project comply with environmental legislation in the host country?	PDD	DR	Verified the contract between Tumpex Empresa Amazonense de Coleta de Lixo and CRA, 21/11/2005. Tumpex is the company that has the authorization from Manaus City Hall to operate the landfill, contract signed between Tumpex and Município de Manaus, 18/07/1989 (first contract), this contract was renovated and the last version is dated 15/06/2005.	Verify	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			Verified the Installation license number 069/06, 26/04/2006 issued by IPAAM.		

Table 7 Comments by local stakeholders (Ref PDD Section G) All CDM Project Activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
7.1 Have relevant stakeholders been consulted?	PDD	DR	No, in process. CRA engaged in the public meeting with stakeholders on January 26, 2006 and the PDD has been updated with the details of the invited stakeholders, a list of those present at the meeting, and the media used for the invitations. CAR 8 was closed out.	CAR 8	Ok
7.2 Have appropriate media been used to invite comments by local stakeholders?	PDD	DR	Verify. Letters were sent in local language with a project summary.	Verify	Ok
7.3 If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	PDD	DR	No, the project need to send a letter to stakeholders according "Resolution #1 (2003/09/11) Brazil". Letters were sent to local stakeholder in 13/01/2006. Letters and delivery receipt were verified. CAR 9 was closed out.	CAR 9	Ok
7.4 Is a summary of the stakeholder comments received provided?	PDD	DR	A public meeting with stakeholders occurred in 26/01/2006 and letters were sent to local stakeholders according Brazilian Resolution. Section G.2 of the PDD presents the comment received. CAR 8 was closed out.	CAR 8	Ok
7.5 Has due account been taken of any stakeholder comments received?	PDD	DR	Yes, section G.3 of the PDD.	CAR 8	Ok

Table 8 Other requirements All CDM project activities

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
8.1 Project Design Document					
8.1.1 Editorial issues: does the project correctly apply the PDD template and has the document been completed without modifying/adding headings or logo, format or font.	PDD	DR	Yes, no changes have been observed.	Ok	Ok
8.1.2 Substantive issues: does the PDD address all the specific requirements under each header. If requirements are not applicable / not relevant, this must be stated and justified	PDD	DR	Yes.	Ok	Ok
8.2 Technology to be employed					
8.2.1 Does the project design engineering reflect current good practices?	PDD	DR	Yes. There are other CDM projects using similar technology.	Ok	Ok
8.2.2 Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	PDD	DR	To combust the LFG, an enclosed flare with full process controls and instrumentation will also be constructed and operated.	Verify	Ok
8.2.3 Is the project technology likely to be substituted by other or more efficient	PDD	DR	It is expected not.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
technologies within the project period?					
8.2.4 Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	PDD	DR/I	<p>All continuously measured parameters (LFG flow, CH₄ concentration, flare temperature, electrical consumption, and flare operating hours) will be recorded electronically.</p> <p>As described on the PDD, during the operational phase, there will be new jobs created locally for duties related to operations and maintenance, landscaping, plumbing, monitoring and security personnel. These people will be fully trained by CRA on their duties and tasks.</p> <p>CRA will conduct a training and quality control program to ensure that good management practices are ensured and implemented by all project operating personnel in terms of record-keeping, equipment calibration, overall maintenance, and procedures for corrective action. An operations manual will be developed for the operating personnel.</p>	Ok	Ok
8.3 Duration of the Project/ Crediting Period					
8.3.1 Are the project's starting date and operational lifetime clearly defined and reasonable?	PDD	DR	<p>Section C.1.1 – starting date 1 September 2006.</p> <p>Section C.1.2 – lifetime 10 years 0 months.</p>	Ok	Ok
8.3.2 Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max. two x 7 years or fixed crediting period of max. 10 years)?	PDD	DR	Yes, section C.2.2.2 – fixed crediting period: 10 years.	Ok	Ok
8.3.3 Does the project's operational lifetime exceed the crediting period	PDD	DR	No.	Ok	Ok

Table 9 Additional requirements for SSC project activities only – N/A

Table 10 Additional requirements for AR projects – N/A

Table 11 Additional requirements for SSC AR projects – N/A

Table 12 Additional information to be verified by local assessors / site visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Confirm the legal status of CRA (company documentation).	Visit	DR/I	The company is legally established in Brazil and have a contract with Tumpex Empresa Amazonense de Coleta de Lixo to design, build, commission and operate a plant for the capture and flaring of landfill gas at the Manaus Landfill in order to capture and incinerate greenhouse gases.	Ok	Ok
Confirmation of the existence of an agreement between CRA and Prefeitura Municipal de Manaus.	Visit	DR/I	Agreement between Tumpex and CRA, 21/11/2005.	Ok	Ok
Verify technical responsible.	Visit	DR	CRA is the technical responsible as described in the PDD (section D.5) and verified during site visit.	Ok	Ok
Verify list of equipment and infrastructure documentation.	Visit	DR Site visit/I	Verified the LFG construction schedule Manaus landfill site.	Ok	Ok
Verify plant of the landfill and project.	Visit	DR Site visit	Verified the plant of the landfill, 16/12/2005.	Ok	Ok

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
Verify condition of the landfill like described in the PDD.	Visit	Site visit	Verified during site visit that the landfill is open and receiving waste.	Ok	Ok
Verify organization chart of the project.	Visit	DR	The organization structure and functions were explained by CRA representatives interviewed during site visit.	Ok	Ok
Confirm that there are no current regulation requiring removal of methane for safety considerations	Visit	DR/I	The Manaus City Hall have a contract with Tumpex (company authorized to operate the landfill), and there are no legal requirement to removal the methane for safety.	Ok	Ok
The project will generate energy to the grid. Verify license process with ANEEL	Visit	DR	Until this moment there is no ANEEL license. The proposed project activity is to implement electricity generation as a 2 nd phase of the project. CRA plans to implement the project incorporating the electricity component to build upon the success of the Phase 1 component of the project.	Ok	Ok

References consulted during Ground Truthing and brief summary of content / significance [please try to obtain a hard copy where ever possible]:

Ref no.	Title (full bibliographic reference if possible)	Brief note on content / significance	Hard copy (Y/n)
1	Installation license number 069/06, 26/04/2006 issued by IPAAM.		Y
2	Agreement between Tumpex and CRA, 21/11/2005.	Contract to design, build, commission and operate a plant for the capture and flaring of landfill gas at the Manaus Landfill in order to capture and incinerate greenhouse gases.	Y
3	Construction schedule Manaus landfill site.		Y

4	Plant of the landfill, 16/12/2005.		Y
5	Contract between Tumpex and Município de Manaus, 18/07/1989 (first contract), this contract was renovated and the last version is dated 15/06/2005.		Y
6	Emissions factor worksheet.	Worksheet with all data and formulas related to emissions factor.	Y

Individuals interviewed during Validation and Ground Truthing [name, position and contact details, plus a brief summary of points discussed]

Date met	Name	Position	Contact details	Brief note on subject of interview
12 and 13 December 2005	Guy L. Treadwell	Project Manager	CRA – Conestoga-Rovers & Associates gtreadwell@croworld.com	Technical information about the project, operational structure and PDD issues.
	Carlson Cabral	Project Coordinator	CRA - Conestoga-Rovers & Associates ccabral@croworld.com	Environmental license, contracts and stakeholder meeting.
12 and 13 December 2005	Mauro Mansur	Director	Tumpex	Landfill responsible.

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ANNEX 5 - FINDINGS OVERVIEW

FINDINGS FROM VALIDATION OF MANAUS LANDFILL GAS PROJECT – CDM.VAL0377

Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified.

Description of table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.

Please note that this is an open list and more findings may be added as validation progresses.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
1	CAR	No letter of approval from an Annex I country (Canada and UK) has been provided.	1.1
<p>Date: December 20, 2005</p> <p>[Comments] CRA Comments: CRA applied for Canadian DNA (Designated Operational Entity) provisional approval in December 2005. A provisional letter of approval was issued on January 11, 2006. CRA will apply for a final Canadian letter of approval upon issuance of the validation report.</p> <p>One of the required documents to apply for the United Kingdom letter of approval is the host country letter issued by the Brazilian DNA. CRA will apply for the United Kingdom letter of approval as soon as the host country letter is issued.</p> <p>Date:</p> <p>[Acceptance and close out]</p>			

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
2	CAR	No letter of approval by host country (Brazil) has been submitted to the validator, this will only be obtained on delivery of a validation report.	1.2
<p>Date: December 20, 2005</p> <p>[Comments] CRA Comments: One of the documents required to apply for a host country letter of approval from the Brazilian DNA is the validation report. CRA will make this application when the validation report is issued.</p> <p>Date: 20/04/2006 - Fabian</p>			

[Acceptance and close out] CAR 2 was cancelled.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
3	NIR	Provide information about who the project estimates 120kW that correspond to electrical consumption of 1,051Mwh/year.	2.5

Date: December 20, 2005

[Comments] CRA Comments: Section E.2 of the PDD provides an estimate for electrical consumption of 120 kWh. This is the estimate for the electricity consumption associated with the mechanical and electrical components of the gas and power generation plant required to draw and process an LFG flow ranging from 5,350 cfm (9,090 m³/h) in 2006 to 8,615 cfm (14,640 m³/h) in 2016. Monthly electrical bills charged to the project will be monitored and considered as the actual energy consumption for the project. This monitoring parameter has been incorporated into the Monitoring Program (annex 4 of the PDD).

The annual electrical consumption of 1,051 MWh/year was calculated based on 8,760 hours of operating time per year. Therefore, the project annual consumption was calculated as 1,051MWh/year = 120 kWh x 8,760 hours/year x 1 MWh/1000 kWh.

Date: 20/04/2006 - Fabian

[Acceptance and close out] Those values are estimated and the correct electricity consumption associated with the project will be considered based in the monthly electrical bills, as described in the PDD, annex 4. NIR 3 was closed out.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
4	NIR	Page 30 of the PDD: grid emission factor for Manaus= 0,6845 tCO ₂ /MWh. How the EF was obtained.	2.6

Date: December 21, 2005

[Comments] CRA Comments: ACM0001 (30 September 2005) and ACM0002 (30 September 2005) require that project emissions associated with electrical consumption should be taken into account.

The first step to calculate the emission factor (EF) for electricity consumption is to identify the generation profile of the local electricity grid. According to Eletronorte (the regional power Utility for the Northern States of Brazil), the Manaus power grid is called "Manaus System" (<http://www.eln.gov.br/home4.htm>) and is an isolated and independent system with no connection to the overall Brazilian national grid. Therefore, the energy consumed in the City of Manaus is generated by the "Manaus System", which is comprised of a hydroelectrical power plant and a number of thermoelectric plants. The most up to date description of power plants that are currently operating in the "Manaus System" can be found in the 2004 Financial Statement of Manaus Energia (the local power Utility, http://www.manausenergia.com.br/quadro_de_balacos.asp) and complemented by the updated inventory of power plants provided by ANEEL (Brazilian Federal Electricity Regulatory Agency, <http://www.aneel.gov.br/aplicacoes/ResumoEstadual/GeracaoTipoFase.asp?tipo=0&fase=3&UF=AM:AMAZONAS>) for the State of Amazonas. In summary, the current power grid has a current capacity of 1,153.7 MW and is comprised of the following power plants:

- Balbina hydroelectric plant (250 MW, representing 21.7% of the grid);
- Usinas Mauá, Aparecida, Electron, A, B, D, Cidade Nova, São José, and Flores; all power plants are diesel fired (746.2 MW, representing 64.7% of the grid); and
- Usina W (Wartsila) El Paso Rio Negro; oil fuel fired (157.5 MW, 13.6%).

Once the power generation profile was identified, the next step was to calculate the emission factors associated with each power generation category according to ACM0002 and IPCC guidelines.

Equation (3) of ACM0002 (version 2, 30 September 2005) was used to calculate the emission factor for each power generation category, using the parameters specified by the Module 1 (Energy) of the 1996 IPCC Guidelines for National Greenhouse Gas Inventories.

The specific emission factor for hydroelectric power is 0 kg CO₂/MWh, while the emission factors for diesel powered thermoelectric and oil fuel powered thermoelectric plants are 20.2 tC/TJ and 21.2 tC/TJ respectively. C emissions were converted to CO₂ emissions applying the 44/12 molar weight factor. Conversion from TJ to MWh was based on specific fuel consumption (amount of fuel necessary to produce one kWh of electricity) of 0.30 litres/kWh for diesel and 0.38 kg/kWh for oil fuel.

The emission factor for the diesel powered thermoelectric plants was calculated as 0.8108 tonnes CO₂/MWh, while the emission factor for the oil fuel powered thermoelectric plants was calculated as 1.1746 tonnes CO₂/MWh. The overall emission factor for the local grid, considering all existing generating sources for the "Manaus System", was calculated as the weighted average of the emission factor for existing generating sources, resulting in an overall emission factor of the "Manaus System" power grid equal to 0.6845 tonnes CO₂/MWh.

Date: 29/05/2006 - Fabian

[Acceptance and close out] All information about this data was presented and the worksheet was verified. NIR 4 was closed out.

Date: 09/12/2005

Raised by: Fabian/Aurea

No.	Type	Issue	Ref
5	CAR	The project doesn't calculate the operating margin emission factor. Why the project consider zero.	2.6

Date: December 21, 2005

[Comments] CRA Comments: ACM0002 defines the project boundary as the project site and all power plants physically connected to the electricity system that the CDM project site is connected to. For the proposed project activity (Manaus Landfill Gas Project), the project boundary is defined by the landfill property limit plus the local power grid, which is delineated by the power plants generating electricity and supplying to the Manaus power grid.

The calculation of the operating margin (OM) emission factor accounts for the emissions generated outside the project boundary where applicable (electricity imports). ACM0002 provides the possible options to calculate the emission factor for net electricity imports ($COEF_{i,j,imports}$), and since the Manaus power grid is an isolated and independent system with no connection to the overall Brazilian national grid (Eletronorte, <http://www.eln.gov.br/home4.htm>), there is no electricity import to the Manaus Landfill Gas Project. As a result, $COEF_{i,j,imports} = 0$ tCO₂/MWh (as allowed by ACM0002, page 3, option "a"). Since $COEF_{i,j,imports} = 0$ tCO₂/MWh, the operating margin (OM) emission factor is also zero and $EF_{OM,y} = 0$ tCO₂/MWh.

Date: 23/05/2006 - Fabian

[Acceptance and close out] The project can consider the operating margin as 0, as a conservative value, but the 0 need to be considered in the weighted average. The PDD was revised and the new version of the PDD provided the calculation of the operating margin, page 32 of the PDD presents the information used to calculate the simple operating margin according to methodology ACM0002. EF (operating margin) = 0.8674 tCO₂/MWh. The worksheet with data and formula was verified. CAR 5 was closed out.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
6	NIR	How the build margin emission factor was calculated, provide formulas.	2.6
<p>Date: December 28, 2005</p> <p>[Comments] CRA Comments: The build margin (BM) emission factor was calculated based on the generation-weighted average emission factor as defined by ACM0002, page 8 , STEP 2, equation</p> $(9): EF_{BM,y} = \frac{\sum_{i,m} Fi,m,y \cdot COEF_{i,m}}{\sum_m GEN_{m,y}}$ <p>According to ACM0002, the larger annual generation sample should be chosen between (1) the five power plants that have been built most recently and (2) the power plants capacity additions in the electricity system that comprise 20% of the system generation and that have been built most recently. For the case of Manaus system generation, the larger annual generation sample is comprised by the five power plants that have been built most recently.</p> <p>Detailed information of the most recently built power plants that are currently operating in the "Manaus System" can be found in the 2004 Financial Statement of Manaus Energia (the local power Utility, http://www.manausenergia.com.br/quadro_de_balacos.asp) and complemented by the updated inventory of power plants provided by ANEEL (Brazilian Federal Electricity Regulatory Agency, http://www.aneel.gov.br/aplicacoes/ResumoEstadual/GeracaoTipoFase.asp?tipo=0&fase=3&UF=AM:AMAZONAS) for the State of Amazonas. A Table showing the most recently built power plants in the Manaus power grid is presented in Section E.4, Step 2 of the PDD, and a summary providing the type of fuel is presented below:</p> <ul style="list-style-type: none"> • Usinas Flores, Cidade Nova, São José, and D El Paso Amazonas are powered by diesel (213.5 MW, representing 57.5% of the sample); and • Usina W (Wartsila) El Paso Rio Negro is powered by oil fuel (157.5 MW, representing 42.5% of the sample). <p>The next step was to calculate the emission factors associated with each power generation category according to ACM0002 and IPCC guidelines.</p> <p>Equation (2) of ACM0002 (version 2, 30 September 2005) was used to calculate the emission factor for each power generation category, using the parameters specified by Module 1 (Energy) of the 1996 IPCC Guidelines for National Greenhouse Gas Inventories.</p> <p>The specific emission factors for diesel powered thermoelectric and oil fuel powered thermoelectric plants are 20.2 tC/TJ and 21.2 tC/TJ respectively. C emissions were converted to CO₂ emissions applying the 44/12 molar weight factor. Conversion from TJ to MWh was based on specific fuel consumption (amount of fuel necessary to produce one kWh of electricity) of 0.30 litres/kWh for diesel and 0.38 kg/kWh for oil fuel.</p> <p>The emission factor for the diesel powered thermoelectric plants was calculated as 0.8108 tonnes CO₂/MWh, while emission factor for the oil fuel powered thermoelectric plants was calculated as 1.1746 tonnes CO₂/MWh. The overall emission factor for the sample was then calculated as the weighted average of the emission factor for each generating source, resulting in an overall emission factor of the sample equal to 0.9652 tonnes CO₂/MWh.</p> <p>Date: 23/05/2006 -Fabian</p> <p>[Acceptance and close out] The formula was provided and the data used to calculate the build</p>			

margin. In the version 3 of the PDD a new value was provided, $EF(\text{build margin})=0.9534$ tCO₂/MWh. The worksheet with data and formulas was verified. NIR 6 was closed out.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
7	NIR	Provide the study about IRR and how all related data was obtained.	3.2

Date: December 28, 2005

[Comments] CRA Comments: The IRR (internal rate of return) for a specific project is defined as the discount rate of a series of cash flow that makes the NPV (net present value) of the project total to zero.

The project IRR in the absence of the CDM incentive can be calculated with financial calculators, based on the project costs and revenue stream, quantified as follows.

1) Project Costs:

For the Manaus Landfill Gas Project, the capital costs to build a LFG power plant with capacity for 18 MW was estimated as US\$ 43 million, to be invested in 2006/2007. The annual operating and maintenance costs were estimated as US\$ 1.5 million per year.

2) Annual Project Revenue:

The only revenue stream in the absence of the CDM incentive would be the sale of electricity to the power grid. Then, considering 18 MW average power plant capacity, 8,760 hours/year, and no downtime or significant reduction in capacity, the maximum amount of kWh/year to be sold to the grid is estimated as 157,680,000 kWh/year.

The price of each kWh to be sold to the grid was estimated based on the total amount annually paid by Manaus Energia to independent power producers factored by the installed capacity of the independent power producers of Manaus. According to the 2004 Financial Statement of Manaus Energia (http://www.manausenergia.com.br/quadro_de_balacos.asp), a total of R\$ 274,415,000 was paid in 2004 to independent power producers, which had a total capacity of 542.5 MW in 2004. Considering the fact that the City of Manaus has electricity shortages with frequent blackouts and long-term plans to expand the electricity generation capacity (Manaus Energia, <http://www.manausenergia.com.br/>) it was conservatively assumed that the independent power plants were run at 75% of total capacity in 2004. Therefore, the independent power producers delivered a total of 3,564,225,000 kWh in 2004, and the unit price can be directly calculated as R\$ 0.08/kWh. Considering an exchange rate of US\$ 1.00 = R\$ 2.30 (Central Bank of Brasil, <http://www.bcb.gov.br>), the unit price of electricity sold to the market was estimated as US\$ 0.03478261/kWh.

The annual revenue for the sale of electricity to the grid for the project activity was estimated as 157,680,000 kWh/year * US \$ 0.03478261/kWh = US \$ 5,484,522/year.

Date: 23/05/2006 - Fabian

[Acceptance and close out] The project presents how data was obtained. NIR 7 was closed out.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
8	CAR	No stakeholders have been consulted. (in process)	7.1, 7.4, 7.5

Date: December 29, 2005

[Comments] CRA Comments: CRA engaged in the public meeting with stakeholders on January 26, 2006 and the PDD has been updated with the details of the invited stakeholders, a list of those present at the meeting, and the media used for the invitations.

Date: 23/05/2006 - Fabian

[Acceptance and close out]: A public meeting with stakeholders occurred in 26/01/2006 and letters were sent to local stakeholders according Brazilian Resolution. CAR 8 was closed out.

Date:09/12/2005

Raised by:Fabian/Aurea

No.	Type	Issue	Ref
9	CAR	The project need to send the letter to stakeholders according "Resolution #1 (2003/09/11) Brazil".	7.3
<p>Date: December 29, 2005</p> <p>[Comments] CRA Comments: CRA prepared and sent letters to the stakeholders as per "Resolution #1 (2003/09/11) Brazil" prior to the January 26, 2006 public meeting. The results of the meeting have been added to the PDD.</p>			
<p>Date: 23/05/2006 - Fabian</p> <p>[Acceptance and close out]: Letters were sent in 13 January 2006. CAR 9 was closed out.</p>			

Observations:



Annex 6 - Local assessment checklist

Manaus Landfill Gas Project (CDM.VAL 0377)

This checklist is designed to provide confirmation of in-country data and information provided in the Project Design Document. It serves as a “reality check” on the project. It is to be completed by SGS Brazil.

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Confirm the legal status of CRA (company documentation).	The company is legally established in Brazil and have a contract with Tumpex Empresa Amazonense de Coleta de Lixo to design, build, commission and operate a plant for the capture and flaring of landfill gas at the Manaus Landfill in order to capture and incinerate greenhouse gases.	Visit/DR/I	No
Confirmation of the existence of an agreement between CRA and Prefeitura Municipal de Manaus.	Agreement between Tumpex and CRA, 21/11/2005.	Visit/DR/I	No
Verify technical responsible.	CRA is the technical responsible as described in the PDD (section D.5) and verified during site visit.	Visit/DR	No
Verify list of equipment and infrastructure documentation.	Verified the LFG construction schedule Manaus landfill site.	Visit/DR/I	No
Verify plant of the landfill and project.	Verified the plant of the landfill, 16/12/2005.	Visit/DR	No

Issue	Findings	Source /Means of Verification	Further action / clarification / information required?
Verify condition of the landfill like described in the PDD.	Verified during site visit that the landfill is open and receiving waste.	Visit	No
Verify organization chart of the project.	The organization structure and functions were explained by CRA representatives interviewed during site visit.	Visit/DR	No
Confirm that there are no current regulation requiring removal of methane for safety considerations	The Manaus City Hall have a contract with Tumpex (company authorized to operate the landfill), and there are no legal requirement to removal the methane for safety.	Visit/DR/I	No
The project will generate energy to the grid. Verify license process with ANEEL	Until this moment there is no ANEEL license. The proposed project activity is to implement electricity generation as a 2 nd phase of the project. CRA plans to implement the project incorporating the electricity component to build upon the success of the Phase 1 component of the project.	Visit/DR	No