

VALIDATION REPORT

Do-inc. Business B.V.

Title of PoA:


“Landfill Gas Utilisation Programme of South Africa”

Report No CCL0021/LGEP/10112011

Revision No 03

VALIDATION REPORT

CDM VALIDATION REPORT NO. CCL0021/LGEP/10112011

| | | |
|---|---|--|
| PoA Title: Landfill gas Utilisation Programme of South Africa | Country: Republic of South Africa | Estimated CERs (tCO ₂ e of the first CPA): 36,569 annual average |
| GHG reducing measure/technology of the CPAs of the PoA: | The reduction in GHG emission for the CPA of the PoA could be attributed to capture of landfill gas (LFG) for flaring and/or electricity generation. LFG mainly consists of CH ₄ , with a high Global warming potential. It is flared to release CO ₂ , much less intensive in GWP. | |
| Client/PP: Do-inc. Business B.V. | Client contact: Geert Eenhoorn Mauritskade 55-D, Amsterdam, 1092 AD The Netherlands Telephone: +31 6 5242 1926 e-mail: do-it@do-inc.net | |
| CME: ENER-G Systems (PTY) LTD | CME contact: David Rodney Cornish Unit 2, The Firs 5 Humber Street, Johannesburg, Gauteng, South Africa Telephone: +27 (0) 11 8038245 e-mail: dcornish@gessa.co.za | |
| Report No.: CCL0021/LGEP/10112011 | Revision: 03 | Date of this report: 28/11/2012 |
| Technical Reviewer: Vikash Singh | | Date of approval: 27/11/2012 |
| Approved by (Final Report): Adam Simcock  | | Date of approval: 28/11/2012 |
| GPS coordinates of the PoA(geographical boundary): | | The verified /B25/ range of geographic coordinates of RSA : latitude : 22°S to 35°S longitude: 16 °E to 33°E |
| Organisational Unit: Carbon Check (Pty) Ltd | | |
| Report Distribution: <input type="checkbox"/> Unrestricted Distribution <input type="checkbox"/> Limited Distribution <input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational) | | |
| Methodology | | |
| Number: ACM0001 | Version: 13 | Title: Flaring or use of landfill gas |
| | | Scale: Large Scale |
| | | SS(s): 13 TA: 13.1 |
| Carbon Check Pty Ltd., (CCL) is commissioned by Do-inc. Business B.V. (the CME) to perform the validation of the Program of activities "Landfill gas Utilisation Programme of South Africa", with regard to the relevant requirements for CDM programme of activities. | | |
| Summary of the PoA Validation and Opinion: | | |
| <input checked="" type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have provided CCL with sufficient evidence for the determination of the PoA's fulfillment of all stated criteria. In our opinion, the PoA meets all relevant UNFCCC requirements for the CDM. Therefore, CCL recommends the PoA for registration by the CDM Executive Board. | | |
| <input type="checkbox"/> The reviews of the project design documentation and the subsequent follow-up interviews have not provided CCL with sufficient evidence for the determination of the PoA's fulfillment of all stated criteria. Therefore, CCL will not recommend the PoA for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board of this decision. | | |

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| Validation Team | | Role | | | | |
|--------------------|---|-------------|--------------|-----------------------|------------------|--------------------|
| Full Name | Appointed for Sectoral scopes (Technical Areas) | Team Leader | Local Expert | Team Member (Auditor) | Technical Expert | Technical Reviewer |
| Ravi Shankar | 1.2, 2.1, 2.2, 3.1, 13.1 | X | | | X | |
| Adam Simcock | -- | | X | | | |
| Amit Anand | 1.2 | | | X | | |
| Anubhav Dimri | -- | | | X | | |
| Vikash Kumar Singh | 1.2, 3.1, 13.1 | | | | | X |

| Validation Phase | Validation Status |
|--|---|
| <input checked="" type="checkbox"/> Desk Review | <input type="checkbox"/> Corrective Actions / Clarifications requested |
| <input checked="" type="checkbox"/> Follow up interviews | <input checked="" type="checkbox"/> Full approval and submission for registration |
| <input checked="" type="checkbox"/> Resolution of outstanding issues | <input type="checkbox"/> Rejected |

Executive Summary – Validation Opinion

The validation team of Carbon Check (Pty) Ltd., performed the validation of the PoA titled “Landfill gas Utilisation Programme of South Africa” in South Africa with regard to the relevant requirements for CDM activities.

Standard auditing techniques have been used for the validation of the PoA. An analysis, as provided by the applied methodology, demonstrates that the proposed PoA is not a likely baseline scenario. Emission reductions attributable to the PoA (eligible CPAs of the PoA) are additional to any that would occur in the absence of the proposed eligible CPAs. Given that the PoA is implemented as designed, the CPAs are likely to achieve the emission reductions.

The validation is based on the information made available to Carbon Check (Pty) Ltd., as well as the engagement conditions detailed in this report. The validation has been performed following the VVM requirements.

The validation was executed in the following steps so far:

- Receipt of PoA-DD (version 01, dated 21/11/2011)/01/ CPA DD (generic)/05-1/ and real case CPA DD/02/ (version 01, dated 21/11/2011) for global stakeholder comments.
- Global stakeholder comment process (24/11/2011 to 23/12/2011)
- On-site visit with stakeholder interviews (19/12/2011-20/12/2011)
- Issue of checklist with corrective action requests (CARs) and clarification requests (CLs) and the draft validation report and protocol
- Desk review of revised DDs applying ACM0001 (version 13)
- Review of responses for CARs/CLs
- Issue of the final validation report and protocol

During the course of validation a total of 12 Corrective Action Requests (CARs) and 8 Clarification Requests (CLs) were identified on webhosted PoA-DD /01/. Upon evaluation of responses provided by the Project Participant (CME) all the identified issues were closed successfully.

The single purpose of this report is its use during the registration process as part of the CDM project cycle. In the opinion of Carbon Check (Pty) Ltd., the PoA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. Carbon Check (Pty) Ltd. thus recommends the PoA to be registered with the UNFCCC.

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Abbreviations

| | |
|-------------------|---|
| BE | Baseline Emissions |
| CAR | Corrective Action Request |
| CC | Cross Check |
| CCL | Carbon Check (Pty) Ltd |
| CDM | Clean Development Mechanism |
| CDM M&P | Modalities and Procedures CDM |
| CER(s) | Certified Emission Reduction(s) |
| CH ₄ | Methane |
| CL | Clarification Request |
| CO ₂ | Carbon dioxide |
| CO ₂ e | Carbon dioxide equivalent |
| CME | Coordinating/managing entity and participants of PoA |
| CPA | Component project activity |
| CPA-DD | Component project Activity design document |
| DR | Document Review |
| DNA | Designated National Authority |
| DOE | Designated Operational Entity |
| EB | Executive Board |
| EIA | Environmental Impact assessment |
| ER | Emission Reductions |
| FAR | Forward Action Request |
| GHG(s) | Greenhouse gas(es) |
| GWP | Global Warming Potential |
| I | Interview or any follow up action |
| IPCC | Intergovernmental Panel on Climate Change |
| LFG | Landfill Gas |
| LoA | Letter of Approval |
| MoV | Means of Validation |
| MP | Monitoring Plan |
| MR | Monitoring Report |
| NGO | Non-governmental Organization |
| ODA | Official Development Assistance |
| PE | Project Emission |
| PoA | Programme of Activities |
| PoA-DD | Programme of Activities design document |
| PP(s) | Project Participant(s) |
| Ref. | Document Reference |
| RSA | Republic of South Africa |
| SD | Sustainable Development |
| SS(s) | Sectoral Scope(s) |
| UNFCCC | United Nations Framework Convention on Climate Change |
| VVM | Validation and Verification Manual |

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Appendix A: Validation Protocol

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1 INTRODUCTION

Do-inc. business B.V. (hereafter referred as "PP") has commissioned the DOE Carbon Check (Pty) Ltd to perform validation of the proposed CDM Programme of Activities (PoA) " Landfill gas Utilisation Programme of South Africa" in South Africa (hereafter called "the PoA"). ENER-G Systems (PTY) LTD is the CME for the PoA. This report summarizes the findings of the validation of the PoA identified in the PoA Design Document (PoA-DD); the CDM Programme Activity Design Document (g-CPA-DD) template with generic information relevant to all CDM Program Activities (CPAs) to be included in the PoA; and the associated real case CPA-DD. The validation was performed on the basis of UNFCCC criteria for the PoAs under the CDM, as well as criteria given to provide for consistent programme operations, monitoring and reporting. The term "UNFCCC criteria" refers to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the procedures for registration of a programme of activities and the subsequent decisions by the COP/MOP and CDM Executive Board. In addition to these criteria, host country criteria are also taken into account.

1.1 Objective

The purpose of a validation is to have an independent third party assess the PoA-DD/03/, CPA-DD template/05-2/ and the associated real case CPA-DD/04/ (also known as specific CPA-DD). In particular, the eligibility criteria for inclusion and demonstration of additionality of CPAs, the programme's baseline determination, monitoring plan, and the programme's compliance with relevant UNFCCC and host Party criteria are validated in order to confirm that the programme design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all CDM PoAs and is seen as necessary to provide assurance to stakeholders of the quality of the programme and its intended generation of certified emission reductions (CERs).

1.2 Scope

The validation scope is defined as an independent and objective review of the PoA-DD/03/, CPA-DD template/05-2/ and the real case CPA-DD/04/. The PoA-DD, CPA-DD template and the real case CPA-DD were reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the procedures for registration of a programme of activities as a single CDM project activity and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology ACM0001 (Version 13)/B04/.

The validation team has, based on the requirements contained in the Validation and Verification Manual and the procedures for registration of a programme of activities as a single CDM project activity employed a rules-based approach, focusing on the identification of significant risks for programme implementation and the generation of CERs.

The validation is not meant to provide any consulting towards the PoA Managing Entity, CPA Implementer(s) and/or project participant(s) (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the programme design.

2 METHODOLOGY

The validation consists of the following four phases:

- I. Publication of the programme design documents (PoA-DD, CPA-DD template and completed CPA-DD) in UNFCCC for global stakeholder consultation;
- II. A desk review of the PoA-DD, CPA-DD template and the associated real case CPA-DD;
- III. On-site visit and follow-up interviews with programme stakeholders; and
- IV. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The following sections outline each step in more detail.

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2.1 Document Review

The following table lists the documentation that was reviewed during the validation.

| Reference No. | Documents |
|---------------|--|
| /01/ | PoA-DD (webhosted version), for "Landfill Gas Utilisation Programme of South Africa", Version 1.0, Date - 21/11/2011 |
| /02/ | CPA-DD (webhosted version) - CPA01 "Landfill gas capture and utilisation project at Shongweni Landfill", Version 1.0, Date -21/11/2011 |
| /03/ | PoA-DD (final version) for "Landfill Gas Utilisation Programme of South Africa", Version 03.3, Date – 12/11/2012 |
| /04/ | CPA-DD (final version) - CPA01 "Landfill gas capture and utilisation project at Shongweni Landfill", Version 03.3, Date – 12/11/2012 |
| /05/ | <ol style="list-style-type: none"> 1. g-CPA DD Generic CPA (webhosted version) – CPA [CPA number; format CPA00 where 00 is the next available number: 01, 02 etc.] "Landfill gas capture and utilisation project at [landfill name]Landfill", Version XX, Date – dd/mm/yyyy 2. g-CPA DD Generic CPA (final version) – CPA [CPA number; format CPA00 where 00 is the next available number: 01, 02 etc.] "Landfill gas capture and utilisation project at [landfill name]Landfill", Version XX, Date – dd/mm/yyyy |
| /06/ | Letter of Approval from the DNA of South Africa, dated 29/05/2012, authorizing the ENER-G Systems (Pty) Ltd, to participate as project participant and coordinating/managing entity to participate in the CDM project. |
| /07/ | Letter of Approval from the DNA of Netherlands, dated 26/06/2012 concerning approval of the participation of Do-inc business BV in the CDM programme of activities "Landfill Gas Utilisation Programme of South Africa" |
| /08/ | Emission factor calculation sheet dated 11/10/2012 |
| /09/ | Emission factor calculation sheet dated 28/10/2011 |
| /10/ | Emission factor calculation sheet dated 02/10/2012 |
| /11/ | Modalities of Communication dated 28/11/2012 |
| /12/ | Agreement relating to the development of a landfill gas CDM project at the Shongweni Landfill Site dated 22/05/2009 |
| /13/ | Department of Water Affairs and Forestry: Minimum requirement for waste disposal by landfill, second edition, 1998 |
| /14/ | Department of Water Affairs and Forestry: Minimum requirement for waste disposal by landfill, draft third edition, 2005 |
| /15/ | Department of Water Affairs and Forestry: Sawic waste treatment report 2011 |
| /16/ | CDM Executive Board: Clarifications regarding the "Procedures for registration of a programme of activities as a single CDM project activity and issuance of certified emission reductions for a programme of activities" EB60 Annex 26, version 01 of 15/04/2011 |
| /17/ | Eskom: Tariffs & Charges Booklet 2011/12 |
| /18/ | Eskom: Integrated Report 2010 |
| /19/ | NERSA: "South Africa Renewable Energy Feed-in Tariff (REFIT) Regulatory Guidelines" of 26/03/2009 |
| /20/ | NERSA: Media Announcement "Delays on timelines for the approval of REFIT Review Tariff" of 24/05/2011 |
| /21/ | Engineering news online : "Nersa moves to cut Refit tariffs just as SA promises to boost renewables" of 22/03/2011 |
| /22/ | Landfill Gas Recovery in South Africa: Status, Issues and Markets |
| /23/ | Deloitte: Corporate Tax Rates 2011 |
| /24/ | Clean Development Mechanism Project Inclusion and CER sale agreement relating to the name Landfill gas to energy project by and between ENER-G Systems (Pty) Ltd and ENER-G Systems Natural Power (Pty) Ltd dated 26/04/2012 |
| /25/ | ENER-G Systems (Pty) Ltd: Declaration of voluntary participation |
| /26/ | ENER-G Systems (Pty) Ltd: Declaration of Non-use of Official Development |

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| | Assistance by CME |
| /27/ | Golder Associates Africa (Pty) Ltd: Environmental Due Diligence Report |
| /28/ | ENER-G Systems (Pty) Ltd: CME Manual /1/WI-CME-GEN-00 Rev 00 Landfill Gas Utilisation Programme of South Africa /2/WI-CME-GEN-16 Rev 04 Inclusion Agreement Template /3/WI-CME-GEN-18 Rev 04 Eligibility Check Procedure /4/WI-CME-GEN-19 Rev 04 Eligibility Check Sheet /5/WI-CME-GEN-20 Rev 00 quality management system manual /6/WI-CME-GEN-29 Rev 00 Operate Gas Meter /7/WI-CME-GEN-30 Rev 00 Calibration of Gas Meter /8/WI-CME-GEN-38 Rev 00 Flare Monthly Trip Sheet Annex 1 /9/WI-CME-GEN-38 Rev 00 Flare Trip Procedure /10/WI-CME-GEN-39 Rev 00 Calibrate Flare Fixed Gas Analyser /11/WI-CME-GEN-45 Rev 00 Training Procedure /12/WI-CME-GEN-47 Rev 00 Instrument Replacement Procedure /13/WI-CME-GEN-50 Rev 00 Flare Data Management /14/WI-CME-GEN-51 Rev 00 Span Gas Handling and Storage /15/WI-CME-GEN-52 Rev 00 Flow Meter Replacement /16/WI-CME-GEN-53 Rev 00 Thermocouple Replacement /17/WI-CME-GEN-54 Rev 00 Continuous Improvement of PoA Management System /18/WI-CME-GEN-55 Rev 00 Monthly Report /19/WI-CME-GEN-56 Rev 00 Template for Declaration on Non-Use of Conditional ODA /20/WI-CME-GEN-57 LFG fin model |
| /29/ | ENER-G Systems (Pty) Ltd: On sites training documents & info /1/Natural Power Head Office and Engineering Staff /2/Call Out /3/Contents Induction Training Manual /4/1030/1150 kW Typical Control Cabinet Layout /5/Ener-G Systems Site Induction /6/Engine Oil System /7/Engine trips & faults /8/Company Health, Safety and Welfare Information /9/Landfill Gas Field Monitoring /10/On the Job Training Record /11/Site forms |
| /30/ | Moore Stephens Chartered Accountants (SA): /1/Ener-G Systems (Pty) Ltd Annual Financial Statements 31/03/2009 /2/Ener-G Systems (Pty) Ltd Annual Financial Statements 31/03/2010 /3/Ener-G Systems (Pty) Ltd Annual Financial Statements 31/03/2011 |
| /31/ | Invoice receipts on import of Technology: /1/ Approved EUR1 S7373946 Scanned /2/ Final Commercial Invoice /3/ Final Packing List /4/ Original BL 11ARBE0140 Scanned |
| /32/ | "List of registered CDM PoA with CDM Executive Board" snapshot on 23/04/2012 |
| /33/ | "List of registered CDM landfill projects in South Africa" snapshot on 23/04/2012 |
| /34/ | "Search result for Shongweni Landfill on UNFCCC website" snapshot on 23/04/2012 |
| /35/ | http://www.eskom.co.za/c/article/236/cdm-calculations/ |
| /36/ | ENER-G Systems (Pty) Ltd: Board Decision on ENER-G Systems (Pty) Ltd as the CME for the PoA |

Background investigation and other referred documents/websites:

| Reference No. | Documents |
|---------------|--|
| /B01/ | CDM Executive Board: EB 55 Annex 1 "Clean Development Mechanism Validation and Verification Manual" version 01.2 of 30/07/2010 |

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|-------|--|
| /B02/ | CDM Executive Board: EB 65 Annex 4 “Clean Development Mechanism Validation and Verification Standard” version 02 of 25/11/2011 |
| /B03/ | CDM Executive Board: Programme of Activities Design Document Form (CDM-PoA-DD) Version 01 of EB 33 Annex 41 of 27/07/2007 |
| /B04/ | CDM Executive Board: Approved baseline and monitoring methodology ACM0001 Version 13.0.0 “Flaring or use of landfill gas” of 11/05/2012 |
| /B05/ | CDM Executive Board: “Combined tool to identify the baseline scenario and demonstrate additionality” version 04 of 02/03/2012 |
| /B06/ | CDM Executive Board: “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion” version 02 of 02/08/2008 |
| /B07/ | CDM Executive Board: “Emissions from solid waste disposal sites” version 06.0.1 of 02/03/2012 |
| /B08/ | CDM Executive Board: “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” version 01 of 16/08/2008 |
| /B09/ | CDM Executive Board: “Project emissions from flaring” version 02 of 20/07/2012 |
| /B10/ | CDM Executive Board: “Tool to determine the mass flow of a greenhouse gas in a gaseous stream” version 02 of 06/03/2011 |
| /B11/ | CDM Executive Board: “Tool to determine the baseline efficiency of thermal or electric energy generation systems” version 01 of 17/07/2009 |
| /B12/ | CDM Executive Board: “Tool to determine the remaining lifetime of equipment” version 01 of 16/10/2009 |
| /B13/ | CDM Executive Board: EB65 Annex 3 “Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities” from 25/11/2011 |
| /B14/ | CDM Executive Board: EB62 Annex 05 “Guidelines on the assessment of investment analysis” version 05 of 15/07/2011 |
| /B15/ | CDM Executive Board: EB 62 Annex 13 “Guidelines for the demonstration and assessment of prior consideration of the CDM” version 04 of 15/07/2011 |
| /B16/ | CDM Executive Board: EB 55 Annex 38 “Procedures for registration of a Programme of Activities as a single CDM Project Activity and issuance of certified emission reductions for a Programme of Activities” version 04.1 of 02/08/2010 |
| /B17/ | CDM Executive Board: EB 33 Annex 42 Component Project Activity Design document form (CDM-CPA-DD) version 01 of 27/07/2007 |
| /B18/ | http://www.sawic.org.za |
| /B19/ | http://cdm.unfccc.int/ |
| /B20/ | http://www.ipcc-nggip.iges.or.jp/ |
| /B21/ | http://www.resbank.co.za |
| /B22/ | CDM Executive Board: Tool to calculate the emission factor for an electricity system, version 02.2.1 of 29/09/2011 |
| /B23/ | http://www.eskom.co.za |
| /B24/ | Status of REFIT scheme: <ol style="list-style-type: none"> http://www.engineeringnews.co.za/article/doe-reports-big-interest-in-renewables-tender-2011-08-31 http://www.eskom.co.za/c/73/info-site-for-ipp/ |
| /B25/ | Geographical co-ordinates for South Africa: http://en.wikipedia.org/wiki/South_africa |
| /B26/ | CDM Executive Board: Guidelines for objective demonstration and assessment of barriers, version 01 of EB 50 Annex 13 |
| /B27/ | E-mail from DNA of Republic of South Africa (dated 28/11/2012) confirming the validity of LoA. |

The changes between the PoA DD version 01 published for the 30 days stakeholder commenting period /01/ and the final version submitted for registration /03/ are addressed in the table 2 and 3 of the validation protocol as a part of this report.

The main changes between the PoA DD, version 01 /01/ published for the 30 days stakeholder commenting period and the final version /03/ submitted for registration are presented in the below table as follows:

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| Topic | PoA-DD – GSC/01/ | Final PoA-DD/03/ | Assessment |
|---|--|--|--|
| PoA title | “Landfill Gas Utilisation Programme of South Africa” | “Landfill Gas Utilisation Programme of South Africa” | No Change |
| Parties | <ul style="list-style-type: none"> Republic of South Africa (Host) Netherlands (Annex 1) | <ul style="list-style-type: none"> Republic of South Africa (Host) Netherlands (Annex 1) | Project participant in host party has been changed from Landfill Carbon (Pty) Ltd. to ENER-G Systems (Pty) Ltd. CL 1 and CAR 4 were raised in this regard and are successfully closed. |
| Scope | 13: Waste handling and disposal | 13: Waste handling and disposal | No change |
| Methodology / Activity | ACM0001 (Version 11) / Large scale | ACM0001 (Version 13) / Large scale | Version of the methodology has been updated to Version 13 from Version 11. |
| Amount of emission reductions (tCO ₂) | Quantification of ERs at PoA level is not required as per the PoA-DD template. | Quantification of ERs at PoA level is not required as per the PoA-DD template. | NA |
| PoA starting date | 01/05/2012 as indicated in section B.1 of PoA-DD, version 01. | 01/03/2013 as indicated in section B.1 of PoA-DD, version 03.3. | Expected starting date of the PoA has been changed to 01/03/2013 as per the UNFCCC interface requirement of PoA start date to be at least 8 weeks later than date of registration. |
| Real case CPA starting Date | 01/05/2012 as indicated in section A.4.2.1 of CPA-DD version 01. /02/ | 30/09/2013 as indicated in section A.4.2.1 of CPA-DD version 03.3. /04/ | Starting date has been changed to 30/09/2013. |
| PoA Location | South Africa | South Africa | No change |

2.2 Follow-up actions

In order to reach to a Validation Opinion a site visit along with an interview was planned for 19/12/2011 to 20/12/2011. Prior to the interview salient points to be discussed were planned. Date of interview, interviewee and points discussed are given in the following table.

| Sr. No. | Date | Name and Role | Organization | Topic |
|---------|-------------------------|---------------|--------------------------|---|
| /a/ | 19/12/2011 - 20/12/2011 | David Cornish | ENER-G Systems (Pty) Ltd | <ul style="list-style-type: none"> CME coordinating CDM functions and responsibilities. Discussion on eligibility criteria and inclusion of a typical CPAs in the PoA including the real case CPA. Discussion on |

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| | | | | |
|-----|-------------------------|------------------------------|--------|--|
| | | | | <p>Additionality justification on PoA level and on typical CPA level including the real case CPA.</p> <ul style="list-style-type: none"> • Discussion on record keeping, monitoring plan and manual. • Discussion on double counting • Discussion on financing pattern(means of finance) of the CPAs(including real case) and involvement of public funding • Discussion on LSC (both on PoA level and real case CPA) and EIA done at CPA level including statutory clearances required for the implementation of the CPA. |
| /b/ | 19/12/2011 - 20/12/2011 | Kim van der Leeuw (Director) | Do-Inc | <ul style="list-style-type: none"> • Project concept and design. • Decision to undertake the project as CDM project. • Discussion on stated goal and policy of the PoA. • Discussion on the operational and management arrangements of the PoA. |

Validation Team considered the views obtained in these interviews while arriving at Validation Opinion.

2.3 Resolution of outstanding issues

The objective of this phase of the validation is to resolve any outstanding issues, which need be clarified prior to Carbon Check's conclusion on the PoA design. In order to ensure transparency a validation protocol is customised for the programme. The protocol shows in transparent manner criteria (requirements), means of verification and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM PoA is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of five tables. The different columns in these tables are described in the figure below. The completed validation protocol for the PoA is enclosed in Appendix A to this report.

Findings established during the validation could either be seen as a non-fulfilment of CDM criteria or where a risk to the fulfilment of programme objectives is identified. Corrective action requests (CAR) are issued, where:

- (i) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- (ii) The CDM requirements have not been met;

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(iii) There is a risk that emission reductions cannot be monitored or calculated.

A request for clarification (CL) may be raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A forward action request (FAR) may be raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

Figure 1 Validation protocol tables

| Validation Protocol, Table 1 - Requirement checklist | | | | | |
|--|---|--|---|---|--|
| Checklist Question | Ref. | MoV | Comments | Draft Conclusion | Final Conclusion |
| The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organized in seven different sections. | Makes reference to documents where the answer to the checklist question or item is found. | Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable. | The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far. | OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. For CAR, CL and FAR see the definitions above. | OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. |

| Validation Protocol, Table 2 - Resolution of Corrective Action Requests and Clarification | | | |
|--|---|---|---|
| Corrective action requests and/or clarification requests | Reference to Table 2 | Response by project participants | Validation Conclusion |
| The CAR and/or CLs raised in table 1 are repeated here. | Reference to the checklist question number in Table 1 where the CAR or CL is explained. | The responses given by the project participants to address the CARs and/or CLs. | The validation team's assessment and final conclusion of the CARs and/or CLs. |

| Validation Protocol, Table 3 - Forward Action Requests | | |
|---|---|---|
| Forward action request | Reference to Table 2 | Response by project participants Validation Conclusion |
| The FAR raised in table 1 is repeated here. | Reference to the checklist question number in Table 1 where the FAR is explained. | Response by the project participants on how forward action request will be addressed prior to first verification. |

2.4 Internal quality control

Before the assessment begins, members of the team covering the technical area(s), sectoral scope(s) and relevant host country experience for evaluating the CDM PoA/CPA are appointed. The validation report including the validation findings underwent a technical review. A technical reviewer qualified in accordance with Carbon Check's qualification scheme for CDM validation and verification performed the technical review.

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2.5 Validation team and the technical reviewer(s)

The validation team and the technical reviewers consist of the following personnel:

| Validation Team | | Type of Involvement | | | | | | |
|--------------------|---|---------------------|-------------|------------------------|---------------------------|------------------------|-------------------|--------------------|
| Full Name | Appointed for Sectoral scopes (Technical Areas) | Supervision of work | Desk review | Site visit & Interview | Report & protocol writing | Technical Expert Input | Reporting support | Technical Reviewer |
| Ravi Shankar | 1.2,2.1, 2.2, 3.1, 13.1 | X | X | X | | X | | |
| Adam Simcock | -- | | | X | | | | |
| Amit Anand | 1.2 | | X | | | | X | |
| Anubhav Dimri | -- | | X | | X | | X | |
| Vikash Kumar Singh | 1.2, 3.1, 13.1 | | | | | | | X |

3 VALIDATION FINDINGS

The findings of the validation are stated in the following sections. The validation criteria (requirements), the means of verification and the results from validating the identified criteria are documented in more detail in the validation protocol in Appendix A.

During the course of validation a total of 12 Corrective Action Requests (CARs) and 8 Clarification Requests (CLs) were identified on webhosted PoA-DD /01/. Upon evaluation of responses provided by the Project Participant (CME) all the identified issues were closed successfully.

The issues raised, PP response and the assessment by validation team are included in Table 2 and Table 3 of Appendix A of validation protocol.

The final validation findings relate to the programme design as documented and described in the PoA-DD/03/ and g-CPA-DD/05-2/.

3.1 Approval and Participation

The below table summarizes the project participants and parties involved. The validation team received letter of approval for Host party/06/ and Annex-1 party /07/ from the CME of the PoA . The copy of the LoA was verified against the original LoA issued by the host country DNA. The contents of the LoA and the signature of the authorised issuer were also compared with those of other approval cases issued by the host country DNA. Therefore, the team has confirmed the authenticity of the letter issued. This LoA is therefore regarded as valid and meeting the CDM requirements.

The Validation Team can confirm that issued LoAs from host party refers to the precise proposed project title as in the PoA DD and g-CPA-DD. The Validation Team can confirm that the project participants are listed in tabular form in section A.3 of the PoA DD/03/ and this information is consistent with the contact details provided in Annex 1 of the PoA DD/03/. The letter of approvals were also found to be unconditional with respect to para 45 (a) to (d) of VVM /B01/. And hence these letter(s) of approval are in accordance with paragraphs 45 - 48 of VVM /B01/. All the LoAs, are checked and found in compliance of CDM requirements including requirements of PoA vide § 8, 9 and 10 of annex 38 EB 55. /B16/

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The below table summarizes the project participants and parties involved:

| | | |
|---|--|---|
| Project Participants | ENER-G Systems (Pty) Ltd | Do-inc. business B.V. |
| Party Involved | South Africa | Netherlands |
| Approval | | |
| LoA Received | Yes | Yes |
| Date of LoA | 29/05/2012 | 26/06/2012, reference 2012ANL647 |
| LoA received from | DNA of South Africa: Department of Energy | DNA of Netherlands: Ministry of Infrastructure and the Environment |
| Approval Number | 2011/11/01 | 2012/04/01 |
| Validation of Authenticity | The LoA was received from the project participant. The DNA of Republic of South Africa via an email dated 28/11/2012/B27/ as required in § 48 VVM /B01/, confirmed the validity of the LoA | The LoA was received from the project participant. The Validation team does not doubt authenticity of LoA, hence did not further cross verified the authenticity by means of communication with the DNA as required in § 48 VVM, ver 01.2/B01/. |
| Validity of LoA | Yes, validation team considers the LoA in accordance with § 45 to 48 VVM, ver 01.2 /B01/ | Yes, validation team considers the LoA in accordance with § 45 to 48 VVM, ver 01.2 /B01/ |
| Participation | | |
| Party is party to the Kyoto Protocol | Yes | Yes |
| Voluntary participation | Yes | Yes |
| Diversion of Official Development Assistance (ODA) towards host country | No | No |
| Project contribution to Sustainable Development | Yes | Yes |

Validation of ODA

The proposed project does not involve any public funding from an Annex I Party, and the validation did not reveal any information that indicated that the project could be seen as a diversion of official development assistance (ODA) funding towards the Host Country.

The validation did not reveal any evidence that this PoA can be seen as a diversion of ODA. It is also confirmed from the letter provided by CME /26/ about no ODA diversion from Annex-I party in the development of the PoA.

Confirmation of Modalities of Communication (MoC)

The project Modalities of Communication (MoC) /11/ signed on 28/11/2012, was received from the CME. As required in Procedures for Modalities of Communication between Project Participants and the Executive Board annex 59 of EB 45, the Validation Team has verified the names of authorised signatories for future communication related to the corresponding scope of authority with UNFCCC from the Host country project participant. The Validation Team can confirm that the signatory and contact details on the MoC are authorized and credible. The MoC has been directly received from the CME.

3.2 Programme of Activities Design Document

The PoA-DD /03/ and the g-CPA-DD template /05-2/ are in compliance with relevant form /B03/ /B17/ as provided by UNFCCC. The applicable versions of the forms are used. Validation team confirms that

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the guidelines for the completion of the PoA documents (as contained in the DD form itself) in their most recent version have been followed. Relevant information was provided by the Managing entity and/ or project participants in the applicable PoA sections. Validation team further confirms the consistency between POA-DD /03/ and the PoA generic CPA-DD /05-2/ to be used for inclusion of a CPA in the registered PoA, this confirms to the requirement of § 15 (d) of EB 55 annex 38.

3.3 Programme Description

The “Landfill gas Utilisation Programme of South Africa” (here in after referred as the “PoA”) is promoted by the Coordinating and Managing Entity (CME) “ENER-G Systems (Pty) Ltd.”.

The programme will reduce greenhouse gas (GHG) emissions by avoiding emissions of landfill gas (LFG) to the atmosphere and/or through the substitution of grid electricity use. LFG consists mainly of the greenhouse gases methane (CH₄), carbon dioxide (CO₂) and nitrogen (N₂). By establishing a system for the capture and utilization of LFG the LFG is extracted and burned in a flare or combusted as fuel in an energy plant. As verified from the PoA DD /03/ and declaration from the CME /27/, validation team confirms that the propose programme is a voluntary co-ordinated action by the CME and the stated goal of the PoA is transparently explained in the PoA DD /03/, this also confirms to the requirement of § 4 of EB 55 annex 38. The PoA aims to support sustainable development in the host country, South Africa. This has been confirmed from the Letter of Approval provided by the PP. /06/ According to the description provided in PoA-DD validation team confirms that the PoA is a voluntary action by the CME /03/. This has been further confirmed based on interview with CME. The geographical boundary of the PoA is confirmed to within South Africa, checked and confirmed by reviewing the PoA-DD /03/. Review of PoA DD /03/ reveals the definition of the boundary for the PoA in terms of a geographical area i.e. within RSA (within which all CPAs included in the PoA will be implemented) has been transparently defined and it take into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary are reflected in the determination of the baseline. This confirms to the requirement of §6 (b) of EB 55 annex 38.

This programme aims to reduce GHG emissions by capturing Landfill gas at solid waste disposal sites in South Africa. The CDM programme activities (CPAs) under the PoA will be implemented in the territory of the Republic of South Africa. Thus, the PoA aims to contribute to the sustainable development of South Africa, reduce Greenhouse Gas (GHG) emissions and adverse environmental effects of landfill gas; and increase the use of renewable energy sources in South Africa.

The proposed PoA involves the transfer of technology and know-how from the EU on the efficient capture and utilisation of the LFG through importing mature technologies such as flares, generators, design philosophies and experience from the EU into South Africa.

The emission reductions at the CPA level would occur either due to utilization of methane for electricity and/or heat generation and/or destruction of methane through flaring which in absence of the project activity is vented into the atmosphere.

As per the PoA DD /03/, there are two types of CPA that are distinguished under the PoA:

Type F. Total release Flaring

Type EG. Total release Electricity Generation supplied to the grid

As per the PoA DD /03/, under this programme only CPAs that include total release of SWDS and involve flaring and/or electricity generation supplied to the grid are to be included in the PoA.

Review of PoA-DD /03/, reveals only two possible technological scenarios in which the CPAs of the PoA may fall:

1. Flaring of LFG that involves total release of the LFG from the SWDS.
2. Flaring and/or electricity generation in the project activity supplied to the grid that involves total release of the LFG from the SWDS.

For both TYPE F and TYPE EG the technology installed under the project activity consists of:

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- 1) A network or grid of vertical and/or horizontal gas extraction wells/ drains made from HDPE slotted pipes/ drains;
- 2) Collection piping system consisting of HDPE pipes/ drains;
- 3) Gas pre-treatment system consisting of condensate Knock out pots, demisted elements and filters;
- 4) Enclosed high temperature environmental flare;

For TYPE EG only:

- 5) Internal spark ignition electricity generation unit;
- 6) Step-up transformers and grid connection.

Validation team confirms that the PoA DD /03/, transparently describes a typical CPA that will be included in the PoA covering the technology or measures to be used, justification of the choice of an approved baseline and monitoring methodology i.e. ACM0001, this also confirms to the requirement of § 6(f) of EB 55 annex 38.

As per the PoA-DD/03/ and on-site interviews it was confirmed that there are no mandatory requirements in South Africa stipulating capturing and utilisation of the landfill gas. The same was also substantiated through a report from Department of Water Affairs and Forestry Republic of South Africa (1998): Minimum requirements for waste disposal by SWDS, available at: <http://www.sawic.org.za/documents/266.PDF>. Validation team thus confirms that as per minimum requirement for waste disposal by landfill /14/ in RSA, it is not mandatory requirement for communal landfills to have landfill gas controls in terms destruction by LFG by means of flaring or combustion to generate electricity, hence it further vindicates the claim of CME on the voluntary co-ordinated action.

From the site visit interviews /a/ /b/ and desk review of PoA DD and other associated template documents, it is revealed that this programme does not involve any ODA funding. Thus, the validation team considers that no ODA funding from any Annex 1 country has been involved under this programme. This is further confirmed by the undertaking /26/ provided by the CME.

As per the PoA DD, the starting date of the PoA in the PoA-DD is 01/03/2013 or the date of registration whichever is later. The length of the PoA is taken as 28 years. The starting date of the validation of the PoA is 24/11/2011 i.e. the date the PoA was published for GSC. In the PoA DD and g-CPA-DD, it has been confirmed that no CPA shall be applicable for the inclusion in the PoA if the start date is before the start of validation. This is in conformity with the § 7(d) of annex 38 of EB 55.

3.4 Eligibility Criteria for CPA Inclusion

Review of PoA DD /03/, CPA DD template /05-2/ and on-site interview with representatives of CME reveals that the CME of the PoA employs clear and unambiguous criteria for the inclusion of the CPAs. The eligibility criteria have been stated and validation team confirms the eligibility criteria are in line with requirement of § 14, annex 3 of EB 65 /B13/. Additionality and applicability of the applied methodology are the eligibility criteria as per the PoA DD/03/, which is deemed appropriate and acceptable to the validation team. This also confirms to the requirement of the § 15(b) of EB 55 annex 38. The eligibility criteria can be checked at the CPA level by the CME and shall be confirmed by the DOE before inclusion of the CPAs in the PoA.

| 3.4.1 Sl. No. | 3.4.2 Eligibility criteria description in PoA-DD/03/ and g-CPA-DD/05-2/ | 3.4.3 Information/document required as listed in the PoA-DD/03/ and g-CPA-DD/05-2/ | 3.4.4 Assessment by the validation team |
|------------------|--|--|--|
| 1. | Ensure that the CPA is located within the Republic of South Africa and hence its boundary is consistent with the geographical boundary of the PoA. | The CME shall check the GPS coordinates of site provided in A.4.1.2 of the CPA-DD. | At the time of inclusion request of any proposed CPA, DOE shall verify by the means of GPS coordinates provided that the CPA is located within the Republic of |

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| | | | South Africa. This is acceptable. |
| 2. | Confirm that the CPA is neither registered as an individual CDM project nor included under another registered PoA. | A duly signed inclusion agreement (using template WI-CME-GEN-16 from the CME manual) and CME double checks with UNFCCC CDM database and with South African DNA project database. | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This is done to avoid the double counting of the project activity. This is acceptable. |
| 3. | Provide documentary evidence that the start date of the CPA is not prior to the commencement of validation of the programme of activities. | Start date as stated in the CPA-DD shall be after web hosting date of the PoA (24/11/2011): Evidence: CPA owner shall provide purchase order (or similar e.g. major purchase quotation or draft PO if the operations have not started) showing that the start date of the CPA is not prior to the web hosting date of the PoA . | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criteria will ensure CPA start date of should not be before start date of validation as required by §7(d) of annex 38, EB 55. |
| Ensure that the CPA complies with the requirements of methodology ACM0001 Consolidated baseline and monitoring methodology for flaring or use of landfill gas (Version 13.0.0) used in the PoA by: | | | |
| 4. | The CPA confirms that the following criteria apply: Either (a) OR (b): (a) The project activity involves the installation of a new LFG capture system in a new or existing SWDS; OR (b) The project activity concerns an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that: (i) The captured LFG was vented and not used prior to the implementation of the project activity; AND (c) The project activity concerns the flaring of LFG (CPA TYPE F) and/or use the captured LFG for generating electricity (CPA | CME verifies that baseline and project activity are correctly defined in the CPA-DD. Evidence will consist of a report by independent technical advisor or engineer or CME. The findings shall confirm the chosen options and support the statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). Purchase order(s) (or similar) providing evidence of project design (CPA TYPE F or TYE EG). NOTE on option (b): option (b) (ii) of ACM0001 version 13 is not allowed under this PoA as described in section E.2. • NOTE on option (c): option (c) (i) of ACM0001 version 13 is Generating electricity. Under this PoA options (ii) and (iii) of ACM0001 version 13 are not allowed and hence not applicable. Option (ii) of ACM0001 version 13 is | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure the applicability of ACM0001 (Version 13) to the proposed CPAs of the PoA. |

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| | <p>TYPE EG); AND (d) The project activity does not reduce the amount of organic waste that would be recycled in the absence of the project activity. Which relate to the applicability criteria of ACM001 version 13.</p> | <p>generating heat in a boiler, air heater or kiln (brick firing only) or glass melting furnace; and option (iii) of ACM0001 version 13 is Supplying the LFG to consumers through a natural gas distribution network as described in section E.2.</p> | |
| 5. | <p>Confirm that in the baseline scenario the most plausible baseline scenario is: a. Total release of LFG from the SWDS b. In the case that the LFG is used in the project activity for generating electricity ; (i) For electricity generation: that electricity would be generated in the grid (CPA TYPE EG only); Which relate to the applicability criteria of ACM001 version 13 and Confirm that the CPA mitigates methane emissions from a specific existing SWDS. Which relates to the application criteria "Application A" of the Tool "Emissions from solid waste disposal sites" version 06.0.0</p> | <p>A site visit shall be performed by the CME or an independent third party. Findings from this site visit shall be listed in a site visit / technical report. Findings shall confirm the baseline scenario and support the statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). NOTE on options b: option (b) (ii) of ACM0001 version 13 'heat generation' is not allowed under this PoA-DD as described in section E.2.</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This is required to check the baseline scenario.</p> |
| 6. | <p>Confirm that the CPA complies with either scenario A or C.III of the Tool to calculate baseline, project and/or leakage emissions from electricity consumption (Version 01)</p> | <p>The choice of scenario shall be supported by suitable evidence on part of the CPA owner such as: Written evidence (for the construction) of a transmission line connection (scenario A and C.III) OR Contract with the owner of the site stating that the CPA will have access to their electricity supply OR Purchase order for captive power plant equipment (e.g. Diesel Generator; scenario C.III) OR Similar document(s) proving the</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This is required to ensure accurate quantification of emission reduction from the CPAs.</p> |

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| | | <p>applicability of the scenario.</p> <p>The applicable scenario shall be stated in the Eligibility Check Sheet (WI-CME-GEN-19)</p> <p>NOTE: scenario B mentioned in the Tool to calculate baseline, project and/or leakage emissions from electricity consumption (Version 01) is not applicable under this PoA.</p> | |
| 7. | <p>Confirm that in the baseline no requirements to destroy neither methane nor an existing LFG capture and destruction system exists (hence that only Case 1 in Table 9 is applicable).</p> | <p>CME verifies that Case 1 is applied in the CPA-DD. Evidence will consist of a report by independent technical advisor or engineer or CME. The chosen option shall be stated in the signed Eligibility Check Sheet (WI-CME-GEN-19) with clear reference to the supporting document.</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check.</p> <p>This is required to check the baseline scenario.</p> |
| <p>Ensure that the additionality analysis has been performed at CPA level using the applicable version of the “Combined tool to identify the baseline scenario and demonstrate additionality”</p> | | | |
| 8. | <p>Ensure that the project IRR is used as the financial indicator for CPA TYPE F and TYPE EG when performing the investment analysis.</p> | <p>The excel tool (WI-CME-GEN-57 LFG fin model) is used and checked by the CME. The chosen option shall be stated in the signed Eligibility Check Sheet (WI-CME-GEN-19) with clear reference to the supporting document.</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned document to the DOE who will be performing validation for the consistency and integrity check. This would ensure that same financial indicator is used for investment analysis to determine additionality. This is in line with the requirements of “Combined tool to identify the baseline scenario and demonstrate additionality”/B05/ and “Guidelines on the assessment of investment analysis” /B14/.</p> |
| 9. | <p>Ensure that when performing investment analysis the guidance provided in Table 8 of the PoA-DD is followed.</p> | <p>The investment analysis is performed using the excel business model provided by the CME (WI-CME-GEN-57). The eligibility check Sheet (WI-CME-GEN-19) shall state that the parameters provided in the guidance have been used for the investment analysis.</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned document to the DOE who will be performing validation for the consistency and integrity check.</p> |
| 10. | <p>Ensure that a stakeholder</p> | <p>Local stakeholder report with all</p> | <p>As provided in PoA-DD,</p> |

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| | consultation has been performed at CPA level and all stakeholder comments have been addressed. | stakeholder comments received. The report shall confirm that all comments have been addressed by the CPA owner and shall outline how this was done. The CME shall check and approve the report confirming that all stakeholder comments have been duly taken into account. | stakeholder consultation would take place at CPA level. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned document to the DOE who will be performing validation for the consistency and integrity check. |
| 11. | Ensure that, if required by relevant South African legislation, an Environmental Impact Assessment (EIA) has been performed and approved by the designated local environmental authority. | <p>A basic environmental assessment is required for each CPA included under the PoA as per Environmental Impact Assessment Regulations (GN 385, 21 April 2006) of the National Environmental Management Act (NEMA) No 107 of 1998. However this act is currently being redrafted and it is expected that – when approved – landfill gas utilisation projects will be exempted from performing an EIA.</p> <p>As long as a revised NEMA is not approved, each CPA will be required to perform a basic environmental impact assessment.</p> <p>Evidence: If an EIA is required by the existing regulation, the following shall be provided by the CPA owner:</p> <ul style="list-style-type: none"> • EIA report approved by the designated local environmental authority <p>If an EIA is not required, the following shall be provided:</p> <ul style="list-style-type: none"> • Reference to the Act replacing NEMA which clearly shows that EIA is not required. | As stated in PoA-DD that the analysis of environmental impacts would be done at CPA level. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. |
| 12. | Confirm that no diversion of official development assistance has taken place in case the CPA receives funding from an Annex I parties. | <p>The following documents shall be provided by the CPA owner:</p> <ol style="list-style-type: none"> 1. Signed confirmation letter (using template WI-CME-GEN-56 from the CME manual) and 2. Financial reports or bank statements of the last 3 years (when available) | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion will ensure non-diversion of ODA during inclusion. |
| 13. | The CPA owner shall | Any or all of the following | At the time of inclusion |

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| | provide evidence of the ownership of and/or permit for the use of the landfill gas produced at the project site. | document shall be provided by the CPA owner: 1. An agreement between the SWDS owner and the CPA owner on the use of the landfill gas at the project site AND/ OR 2. A licence for gas extraction, recovery and/ or flaring issued by Department of Environmental Affairs and Tourism. | request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. |
| 14. | The CPA owner shall have contractually agreed with the CME on how the CERs or revenue generated are to be shared. | An inclusion agreement (using template WI-CME-GEN-16 from the CME manual) signed by both CME and CPA owner. | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This eligibility criterion would ensure that a formal contract exists between CPA owner and CME for revenue sharing. |
| 15. | The CPA shall perform a Common practice analysis in the CPA-DD as per guidance provided in the PoA-DD. | CME will check if at least one of the following criteria is not applicable and hence CPA is not common practice: (a) The factor F is greater than 0.2; and (b) $N_{all}-N_{diff}$ is greater than 3. Evidence: Eligibility Check Sheet (WI-CME-GEN-19) signed by CPA owner and by CME stating that the CPA is not common practice. | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This is done to check common practice analysis for additionality. |
| 16. | Confirm that the CPA doesn't use methodology ACM0001 in combination with any other methodology. | CME checks CPA-DD. Evidence: Eligibility Check Sheet (WI-CME-GEN-19) signed by CPA owner and by CME stating that only ACM0001 is used. | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. This will ensure that only the applicable methodology for PoA is used in CPA under inclusion. This ensures applicability condition of methodology ACM0001. |
| 17. | Confirm that the landfill sites included under the programme have received on average more than 5,000 tonnes of waste per month in the last year of | Evidence: Report by independent technical advisor or engineer. Findings shall confirm the collection efficiency of the collection system and support the | This eligibility criterion ensures the applicability condition of methodology ACM0001 with respect to defining eligibility criteria |

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| | operation or in the case of new landfills have been contracted to receive at least 5,000 tonnes of waste per month. | statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). | for CPA inclusion. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. The evaluation criterion is verifiable and sufficiently objective. |
| 18. | Confirm that the landfill sites included under the programme have more than 0.5 million tonnes of waste in position and a waste depth greater than 5m. | Evidence: Report by independent technical advisor or engineer. Findings shall confirm the collection efficiency of the collection system and support the statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). | This eligibility criterion ensures the applicability condition of methodology ACM0001 with respect to defining eligibility criteria for CPA inclusion. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. The evaluation criteria is verifiable and sufficiently objective |
| 19. | Confirm that the landfill gas collection system included in the programme have an anticipated collection efficiency of above 20%. | Evidence: Report by independent technical advisor or engineer. Findings shall confirm the collection efficiency of the collection system and support the statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). | As per the methodology, for calculation of amount of methane flared in the baseline, the efficiency of LFG capture system in baseline is 20%. At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. |
| 20. | Ensure that the capital, operations and maintenance costs budgeted are market related and comparable with other projects of similar size and scope and fall within a range of 20% above or below the selected benchmark and corrected for any differences in inflation or | Evidence: Report by independent technical advisor or engineer to confirm the budget and statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19). | At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. It ensures the requirements of investment analysis for additionality. |

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| | exchange rates applicable to the respective CPA. | | |
| 21. | <p>Confirm that the revenue received by the CPA is from a combination of but not limited to the following:</p> <ul style="list-style-type: none"> Income from CER sales (CPA TYPE F and CPA TYPE EG) and/or Income from Electricity (CPA TYPE EG only) <p>There is no limit to any fiscal incentives of subsidies.</p> | <p>Evidence: Report by independent technical advisor or engineer to confirm the budget and statement made in the signed Eligibility Check Sheet (WI-CME-GEN-19).</p> | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. It ensures the requirements of investment analysis for additionality.</p> |
| 22. | <p>Ensure that the CPA owner has properly defined the management of SWDS prior to the start of the project activity.</p> | <p>Evidence: Report by independent technical advisor or engineer to specify the original characteristics of the landfill site thus defining the baseline characteristics of the site. This shall include but not be limited to:</p> <ul style="list-style-type: none"> waste placement type of waste received operational licenses (if applicable) technical drawings and photographs (if available) | <p>At the time of inclusion request of any proposed CPA, CME shall submit the mentioned documents to the DOE who will be performing validation for the consistency and integrity check. It ensures the confirmation on management of SWDS prior to the start of the project activity and that it is not deliberately changed during the crediting in order to increase methane generation.</p> |

Validation team has checked the CME Management Manual /28/ and based on these documents and on-site interview with personnel involved at the CME end, validation team confirms that the CME has competencies to check the features of potential CPAs of PoA and also have competency to check that each CPA meets all requirements and eligibility criteria before submission to the DOE for the inclusion. The CME and the CPA will confirm that all criteria are met by duly signing the Eligibility Check Sheet /28-4/. Based on above validation team confirms the compliance of § 14 -15 of annex 3 of EB 65 /B13/.

3.5 Operation and Management Plan

Validation team based on the review of PoA DD /03/ and CME Management Manual /28/ confirms that clear and transparent description of the operational and management arrangement has been established by the CME for the PoA. The same has also been confirmed during the on-site interview. All the details of individual CPAs including the documents shall be controlled at CME end. The CME will be responsible for the regular collection and storage of the monitoring data for each CPA under the PoA. The CME checks this data for quality and consistency.

CME has established an operational and management plan /28/, which includes:

- A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies;
- Records of arrangements for training and capacity development for personnel;
- Procedures for technical review of inclusion of CPAs;

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- d) A procedure to avoid double counting (e.g. to avoid the case of including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA);
- e) Records and documentation control process for each CPA under the PoA;
- f) Measures for continuous improvements of the PoA management system;

By reviewing this validation team confirms that the CME have the competencies to check the features of potential CPAs and can ensure that each CPA meets all requirements and eligibility criteria before inclusion in the registered PoA. Based on above, validation team confirms the compliance of following, in the management system of CME (in line with the requirement of §17 annex 3 of EB 65 /B13/):

In order to avoid double counting the CME will verify and confirm that the proposed CPA has not yet been registered either as CDM project activity or as a CPA of another PoA by checking this information in the UNFCCC CDM database and with the South African DNA and erect a sign on site stating that the CPA is part of the PoA. This is in line with the eligibility criteria provided for the inclusion of CPAs.

Detailed information of each CPA included in the proposed PoA will be stored in a database according to record keeping requirements established by the CME. These requirements cover the following variables:

- 1) Name and ID number of the CPA
- 2) Details of the CPA SWDS (i.e. GPS coordinates, area, waste mix)
- 3) Name and address of the CPA owner
- 4) Technical details of the system installed at the SWDS (i.e. electricity generators, power capacity)
- 5) Monitoring results and data (i.e. the amount of LFG captured, electricity generated, CH₄ content) as per the CPA-DD and the applicable methodology.

Based on above it can be confirmed that the CME would be able to ensure that no double counting occurs. Also, since as each CPA is uniquely identified by the title in the format of CPA DD (CPA [CPA number; format CPA00 where 00 is the next available number: 01, 02 etc.]“Landfill gas capture and utilisation project at [landfill name] Landfill”), the CME can check whether a CPA under the PoA is already a registered CDM project or CPA in another PoA from the UNFCCC website. In this regard CME will also seek a declaration / letter from the CPA implementer.

Based on above validation team confirms to the requirement of the §6 (i) and § 15(c) of EB 55 annex 38.

3.6 Monitoring Plan

There is no sampling approach for the verification of the CPAs of the PoA. As per the PoA DD /03/, CME of the PoA has opted each of the CPA for the verification.

As per PoA DD /03/, for the monitoring parameters to be opted by CPAs of the PoA, no sampling is required for any of the parameters. 100% data shall be monitored and no parameters shall be monitored on sampling approach. The same has been verified from the PoA DD /03/. Review of monitoring plan provides a transparent system to ensure that no double counting occurs and that the status of verification can be determined any time for each CPA. This confirms to the requirement of the §6 (j) of EB 55 annex 38. The system to avoid double counting has been indicated in the PoA DD /03/.

The main roles and responsibilities and the general scheme of monitoring plan has also been indicated in the PoA-DD. /03/

The description provided in the PoA-DD /03/ on the operational and management arrangements were confirmed based on document review and through on-site interviews.

3.7 Baseline and monitoring methodology

3.7.1 Applicability of selected methodology

The compliance of the applied baseline and monitoring methodology /B04/ is a part of eligibility criteria as mentioned in the PoA DD /03/ and g-CPA DD /05-2/. The DOE shall check the same during

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inclusion of the CPA in the PoA. The assessment of the validation team (for the requirement to be checked during CPA inclusion) is summarised below:

| Criteria of methodology | Justification in PoA-DD/03/ and g-CPA-DD/04/ | Assessment by the validation team |
|---|--|--|
| 3.7.2 Applicability to project activities: | | |
| (a) Install a new LFG capture system in a new or existing SWDS; or | Included. The project activity involves the installation of a new LFG capture system in a new or existing SWDS; | It shall be checked during inclusion of CPAs by the means of report by independent technical advisor or engineer or CME. |
| (b) Make an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that: (i) The captured LFG was vented or flared and not used prior to the implementation of the project activity; and (ii) In the case of an existing active LFG capture system for which the amount of LFG cannot be collected separately from the project system after the implementation of the project activity and its efficiency is not impacted on by the project system: historical data on the amount of LFG capture and flared is available. | Included. The project activity concerns an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that: (i) The captured LFG was vented and not used prior to the implementation of the project activity; Excluded. Making an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that the captured LFG was flared and not used prior to the implementation of the project activity. This has been excluded from the PoA. Excluded. Making an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that In the case of an existing active LFG capture system for which the amount of LFG cannot be collected separately from the project system after the implementation of the project activity and its efficiency is not impacted on by the project system: historical data on the amount of LFG capture and flared is available. This has been excluded from the PoA. | It shall be checked during inclusion of the CPA by the means of report by independent technical advisor or engineer or CME that the project activity concerns an investment into an existing LFG capture system to increase the recovery rate or change the use of the captured LFG, provided that: (i) The captured LFG was vented and not used prior to the implementation of the project activity; |
| (c) Flare the LFG and/or use the captured LFG in any (combination) of the following ways: (i) Generating electricity; (ii) Generating heat in a boiler, air heater or kiln | Included. The project activity concerns the flaring of LFG (CPA TYPE F) and/or use the captured LFG for generating electricity (CPA TYPE EG); Conditions (c)(ii) and (c)(iii) are not included in the PoA. | Conditions (c)(ii) and (c)(iii) are not included in the PoA. It shall be checked during inclusion of the CPA by the means of report by independent technical advisor or engineer |

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| (brick firing only) or glass melting furnace; and/or (iii) Supplying the LFG to consumers through a natural gas distribution network. | | that CPA uses LFG for flaring and/or electricity generation purposes only. |
| (d) Do not reduce the amount of organic waste that would be recycled in the absence of the project activity. | Included. The project activity does not reduce the amount of organic waste that would be recycled in the absence of the project activity. | It shall be checked during inclusion of the CPA by the means of report by independent technical advisor or engineer that CPA does not reduce the amount of organic waste that would be recycled in the absence of the project activity. |
| 3.7.3 Applicability to demonstrate and confirm upon inclusion that the most plausible baseline scenario is: | | |
| (a) Release of LFG from the SWDS; and | Included. Confirm that in the baseline scenario the most plausible baseline scenario is: a. Total release of LFG from the SWDS | A site visit shall be performed by the CME or an independent third party. Findings from this site visit shall be listed in a site visit / technical report. It shall be checked during inclusion of the CPA that the baseline scenario involves total release of LFG from the SWDS through the above mentioned report. |
| (b) In the case that the LFG is used in the project activity for generating electricity and/or generating heat in a boiler, air heater, glass melting furnace or kiln; (i) For electricity generation: that electricity would be generated in the grid or in captive fossil fuel fired power plants; and/or (ii) For heat generation: that heat would be generated using fossil fuels in equipment located within the project boundary. | Included. Confirm that in the baseline scenario the most plausible baseline scenario is: b. In the case that the LFG is used in the project activity for generating electricity ; (i) For electricity generation: that electricity would be generated in the grid (CPA TYPE EG only); | A site visit shall be performed by the CME or an independent third party. Findings from this site visit shall be listed in a site visit / technical report. It shall be checked during inclusion of the CPA that the baseline scenario involves in case of electricity generation, that the electricity would be generated in the grid. Heat generation is excluded from the PoA. |
| 3.7.4 Methodology is not applicable to: | | |
| (a) In combination with other approved methodologies. For instance, ACM0001 cannot be used to claim emission reductions for the displacement of fossil fuels in a kiln or glass melting furnace, where the purpose of the CDM project activity is to implement energy efficiency measures at a kiln or glass melting furnace; | Included. In combination with other approved methodologies. For instance, ACM0001 cannot be used to claim emission reductions for the displacement of fossil fuels in a kiln or glass melting furnace, where the purpose of the CDM project activity is to implement energy efficiency measures at a kiln or glass melting furnace; | It shall be checked during inclusion of the CPA by the CME. Eligibility check sheet /28-4/ shall be signed by CPA owner and CME stating that only ACM0001 is used. |
| (b) If the management of the SWDS in the project activity | Included. Ensure that the CPA owner has properly defined the | It shall be checked during inclusion of the CPA by means |

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| <p>is deliberately changed during the crediting period in order to increase methane generation compared to the situation prior to the implementation of the project activity.</p> | <p>management of SWDS prior to the start of the project activity.</p> | <p>of report by independent technical advisor or engineer to specify the original characteristics of the landfill site. This will be checked to ensure that the CPA owner has properly defined the management of SWDS prior to the start of the project activity and the management of the SWDS in the project activity is not changed deliberately.</p> |
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3.7.5 Applicability conditions specially for PoAs:

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| <p>The PoA may consist of one or several types of CPAs. CPAs are regarded to be of the same type if they are similar with regard to the demonstration of additionality, emission reduction calculations and monitoring. The CME shall describe in the CDM-PoA-DD for each type of CPAs separately:</p> <p>(a) Eligibility criteria for CPA inclusion used for each type of CPAs. In case of combinations of the types of use of the captured landfill gas in one CPA, the eligibility criteria shall be defined for each type of use of the LFG separately</p> <p>(b) Emission reduction calculations for each type of CPAs;</p> <p>(c) Monitoring provisions for each type of CPAs.</p> | <p>(a) The PoA consists of two types of CPAs: TYPE EG and TYPE F. Per relevant Eligibility Criteria it has been specified to which type the criteria apply in Table 1 above.</p> <p>(b) Where applicable, in the relevant section E.6 the type of CPA has been specified related to the emissions reduction calculations.</p> <p>(c) Where applicable, in the relevant section E.7 the type of CPA has been specified related to the emissions reduction calculations.</p> | <p>Eligibility criteria for two types have been specified in sec. A.4.2.2 of PoA-DD/03/.</p> <p>In the emission reduction equations and calculation in sec. E.6.2 and E.7.1 of PoA-DD/03/, equations and parameters are stated, for each type of CPAs.</p> <p>In E.7.2, monitoring would be done at CPA level and at PoA level monitoring provisions are provided in sec. A.4.4.2 of PoA-DD/03/.</p> |
| <p>The CME shall describe transparently and justify in the CDM-PoA-DD which CPAs are regarded to be of the same type. CPAs shall not be regarded to be of the same type if one of the following conditions is different:</p> <p>(a) The baseline scenario with regard to any of the following aspects:</p> <p>(i) Partial release of the LFG from the SWDS;</p> <p>(ii) Total release of the LFG from the SWDS;</p> | <p>(a)(i) Not allowed under this PoA.</p> <p>(a)(ii) All types under this PoA fulfil this requirement (see Eligibility Criteria for inclusion 5.a.)</p> <p>(a)(iii) The grid - Only applicable for TYPE EG (see Eligibility Criteria for inclusion 5.b.)</p> <p>Captive fossil fuel fired power plants - Not allowed under this PoA.</p> <p>(b) Not allowed under this PoA.</p> <p>(c) (i) Only TYPE F (see Eligibility Criteria for inclusion 4.c.)</p> <p>(c)(ii) Electricity generation - TYPE EG (see Eligibility Criteria for</p> | <p>Baseline scenario involves partial release of LFG from SWDS in not included in the PoA. All types of CPA include total release of the LFG from SWDS, an eligibility criteria has been stated for the applicability condition. In case of electricity generation, TYPE EG CPAs, an eligibility criterion has been stated for inclusion of CPAs for grid connectivity. Captive fossil fuel fires power plants are not included in PoA as baseline scenario.</p> <p>Eligibility criteria conditions related to flaring and electricity</p> |

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| <p>(iii) In case of electricity generation in the project activity:</p> <ul style="list-style-type: none"> • The grid; • Captive fossil fuel fired power plants; <p>(b) In case of heat generation, fossil fuel fired on-site equipment;</p> <p>(c) The project activity with regard to any of the following aspects of the use of the captured landfill gas:</p> <p>(i) Flaring;</p> <p>(ii) Flaring; and</p> <ul style="list-style-type: none"> • Electricity generation; • Heat generation; <ul style="list-style-type: none"> o Boiler; o Air heater; o Kiln; o Glass melting furnace; <ul style="list-style-type: none"> • Supplying the LFG to consumers through a natural gas distribution network; <p>(iii) Combinations of types of use of the landfill gas;</p> <p>(d) The legal and regulatory framework.</p> | <p>inclusion 4.c.)</p> <p>Heat generation - Not allowed under this PoA.</p> <p>Supplying the LFG to consumers through a natural gas distribution network - Not allowed under this PoA.</p> <p>(c)(iii) Only flaring and/ or electricity generation allowed under this PoA. (see Eligibility Criteria for inclusion 4.c.)</p> <p>(d) See section E.4.</p> | <p>generation are provided in PoA-DD /03/ for both the types of CPA, TYPE F and TYPE EG. Heat generation, supplying the LFG to consumers through a natural gas distribution network is not allowed in the PoA.</p> |
| <p>When defining eligibility criteria for CPA inclusion for a distinct type of CPAs, the CME shall consider relevant technical and economic parameters, such as:</p> <p>(a) Ranges of certain design specifications (ranges of sizes of landfill and amounts of waste disposed);</p> <p>(b) Ranges of efficiency of the landfill gas capture system;</p> <p>(c) Type of solid waste disposal site:</p> <p>(i) New solid waste disposal site;</p> <p>(ii) Existing solid waste disposal site;</p> <p>(d) Ranges of costs (capital</p> | <p>(a) (see Eligibility Criteria for inclusion 17 and 18).</p> <p>(b) (see Eligibility Criteria for inclusion 19)</p> <p>(c) (i) (see Eligibility Criteria for inclusion 4.a.)</p> <p>(c) (ii) (see Eligibility Criteria for inclusion 4.a.)</p> <p>(d) (see Eligibility Criteria for inclusion 20)</p> <p>(e) (see Eligibility Criteria for inclusion 21)</p> | <p>Ranges of design specifications, efficiency of the landfill gas capture system, type of solid waste disposal site, ranges of costs and ranges of revenues are stated in eligibility criteria conditions in PoA-DD/03/ for inclusion of CPAs, checked and confirmed by the validation team.</p> |

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| <p>investment, operating and maintenance costs, etc.);</p> <p>(e) Ranges of revenues (income from electricity, heat or LFG sale, subsidies/fiscal incentives, ODA).</p> | | |
| <p>The eligibility criteria related to the costs and revenues parameters shall be updated every 2 years in order to correctly reflect the technical and market circumstances of a CPA implementation.</p> | <p>Eligibility Criteria for inclusion 8 and 9 shall be updated every 2 years as these relates to the costs and revenues parameters (as defined in Table 8 of this PoA).</p> | <p>The eligibility criteria 8 and 9 shall be updated relating to the costs and revenue parameters every 2 years in order to correctly reflect the technical and market circumstances of a CPA implementation/03/.</p> |
| <p>In case the PoA contains several types of CPAs, the actual CPA-DD submitted for the purpose of registration of the PoA shall contain all information required as per the latest approved version of the 'Guidelines for completing the component project activity design document form' for each type of actual CPA, to be validated by a DOE and submitted for the registration to the Board.</p> | <p>Since the PoA contains several types of CPAs (Type F and Type EG), the actual CPA-DD submitted for the purpose of registration of the PoA shall contain all information required as per the latest approved version of the "Guidelines for completing the component project activity design document form" for each type of actual CPA, to be validated by a DOE and submitted for the registration to the Board as required by ACM0001 version 13.</p> | <p>The real case CPA_DD submitted for the purpose of registration of the PoA shall contain all information required as per the latest approved version of the "Guidelines for completing the component project activity design document form" for each type of actual CPA/03/.</p> |

In addition to above validation team noted that the applied methodology has directed for the use of "Combined tool to identify the baseline scenario and demonstrate additionality". Validation team based on review of PoA DD /03/ confirms that the combined tool has been correctly quoted and used in the PoA DD /03/ for the identification of baseline and additionality for the potential CPAs of the PoA. The assessment of baseline is described in section 3.7.7 of the report where as additionality in section 3.8. Please refer to the detailed assessment in the respective section.

Based on above validation team confirms to the requirement of the §6 (f) of EB 55 annex 38.

3.7.6 CPA boundary

The boundary of the potential/future CPAs of the PoA has been assessed by considering information gathered from the site visit, interviews, and from the technological description of the different technological scenarios of the PoA as stated in the PoA DD /03/.

Validation team confirms that the project boundary for the potential/future CPAs is based on the applied methodology /B04/ and the sources and gases within the boundary have been considered in a clear manner as detailed below:

- A) For the purpose of determining project activity emissions, each CPA includes:
 - CO₂ emissions from fossil fuel consumption for purposes other than electricity generation or transportation due to the project activity;
 - CO₂ emissions from electricity consumption due to the project activity CO₂ emissions from on-site fuel consumption due to the project activity, including transport of the fuel;

- B) For the purpose of determining baseline emissions, each CPA includes the following emissions sources:

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- CH₄ emissions from decomposition of waste at the SWDS site;
- CO₂ emissions from electricity consumption.

C) The special extent of each CPA comprises:

In accordance with the methodology ACM0001 (Version 13.0.0) the spatial extent of CPA boundary is the site where the LFG is captured and:

- Sites where the LFG is flared or used (i.e. flare, power plant) ;
- Captive power plant(s) (including emergency diesel generators) or power generation sources connected to the grid, which are supplying electricity to the project activity;
- Captive power plant(s) (including emergency diesel generators) or power generation sources connected to the grid, which are supplying electricity in the baseline that is displaced by electricity generated by captured LFG in the project activity.

Validation team based on the above confirms that the project boundary for all the technological scenarios as documented in the PoA-DD/03/ is justified for the future CPAs of the PoA and is fully in line with the requirements set by the applied methodology /B04/.

3.7.7 Baseline identification

In accordance with the methodology ACM0001 (Version 13.0.0) the baseline scenario is identified and additionality demonstrated using the “Combined tool to identify the baseline scenario and demonstrate additionality” version 04. The PoA-DD/03/ defines the following baseline scenario:

The baseline scenario equals the scenario prior to the implementation of this project activity. This scenario simply involves the release of LFG from SWDS and in case of electricity generation that electricity would be generated in the grid or in captive fossil fuel fired power plants.

The information presented in the PoA-DD/03/ has been validated by an initial document review of all the data. Further confirmation has been made based on the on-site visit and researched information from similar projects and/or technologies.

The methodology requires the identification of baselines scenario and identification of additionality from the tool used “Combined tool to identify the baseline scenario and demonstrate additionality”.

Step 1, of the tool involves identification of alternative scenarios. The alternative scenarios for the destruction of LFG have been identified as per the applied methodology, ACM0001 version 13 as:

- LFG1: The project activity implemented without being registered as a CDM project activity (i.e. capture and flaring or use of LFG);
- LFG2: Atmospheric release of the LFG or capture of LFG and destruction through flaring to comply with regulations or contractual requirements, or to address safety and odour concerns;
- LFG3: LFG is partially not generated because part of the organic fraction of the solid waste is recycled and not disposed in the SWDS;
- LFG4: LFG is partially not generated because part of the organic fraction of the solid waste is treated aerobically and not disposed in the SWDS;
- LFG5: LFG is partially not generated because part of the organic fraction of the solid waste is incinerated and not disposed in the SWDS.

Baseline scenarios (explaining inclusion/exclusion of any alternative) for PoA as a whole (for potential CPAs of the PoA) are described in the table provided below:

| Scenario | Justification in PoA-DD/03/ | Assessment by validation team |
|---|-----------------------------|---|
| Alternative scenarios for the destruction of LFG | | |
| LFG1: The project activity implemented without being | Applicable | Included. Scenario LFG1 as per methodology is included as an alternative |

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| <p>registered as a CDM project activity (i.e. capture and flaring or use of LFG)</p> | | <p>scenario as the project activity can be implemented without CDM benefits. Final conclusion: Inclusion justified and acceptable to the validation team.</p> |
| <p>LFG2: Atmospheric release of the LFG or capture of LFG and destruction through flaring to comply with regulations or contractual requirements, or to address safety and odour concerns</p> | <p>Applicable</p> | <p>Included. Scenario LFG2, atmospheric release of the LFG or capture of LFG and destruction through flaring to comply with regulations or contractual requirements, or to address safety and odour concerns has been identified as a plausible alternative baseline scenario. Final conclusion: Inclusion justified and acceptable to the validation team.</p> |
| <p>LFG3: LFG is partially not generated because part of the organic fraction of the solid waste is recycled and not disposed in the SWDS</p> | <p>Recycling of organic solid waste is not common in South Africa. Where it does happen the waste is collected separately. Only an estimated 0.3% of the organic substances is processed according to SAWIC. Hence more than 99% of the organic waste still end up on SWDSs because they are unsuited to be recycled (e.g. too contaminated, too degraded) as such alternative LFG 3 is excluded from further evaluation. As long as organic waste ends up on a SWDS, harmful LFG will be generated. This PoA will only claim LFG generated from the fraction of waste that cannot be recycled and ends up on the landfills.</p> | <p>Not Included. As stated in PoA-DD/03/, recycling of organic solid waste is not common in South Africa. Where it does happen the waste is collected separately. Only an estimated 0.3% of the organic substances are processed according to SAWIC reports, checked and confirmed by the validation team based on document review /13/ /14//15/ /B18/. Final conclusion: Exclusion justified and acceptable to the validation team.</p> |
| <p>LFG4: LFG is partially not generated because part of the organic fraction of the solid waste is treated aerobically and not disposed in the SWDS</p> | <p>Aerobic treated organic solid waste treatment is not common in South Africa. Where it does happen the waste is collected separately. Only an estimated 0.3% of the organic substances is processed according to SAWIC. Hence over 99% of organic waste still end up on SWDSs because they are unsuited to be composted (e.g. contaminated) as such alternative LFG 4 is excluded from further evaluation. As long as organic waste ends up on a SWDS, harmful LFG will be</p> | <p>Not Included. As stated in PoA-DD/03/, Aerobic treated organic solid waste treatment is not common in South Africa. Where it does happen the waste is collected separately. Only an estimated 0.3% of the organic substances are processed according to SAWIC /13/ /14//15/ /B18/, checked and confirmed by the validation team based on document review /13/ /14//15/ /B18/. Final conclusion:</p> |

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| | generated. This PoA will only claim LFG generated from the fraction of waste that cannot be recycled and ends up on the landfills. | Exclusion justified and acceptable to the validation team. |
| LFG5: LFG is partially not generated because part of the organic fraction of the solid waste is incinerated and not disposed in the SWDS | In South Africa incineration of solid waste is not common practice. Only hazardous waste (e.g. hospital waste) is incinerated. Total incineration capacity is 4,617 tonnes in 2011 (only 0.1%) of estimated annual waste processed. Alternative LFG 5 has hence been excluded from further evaluation. | Not Included. As stated in PoA-DD/03/, In South Africa incineration of solid waste is not a common practice. Only hazardous waste (e.g. hospital waste) is incinerated. Total incineration capacity is 4,617 tonnes in 2011 (only 0.1%) of estimated annual waste processed, checked and confirmed by the validation team based on document review /13/ /14//15/ /B18/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| E1: Electricity generation from LFG, undertaken without being registered as CDM project activity | Applicable | Included Scenario E1 is included in the PoA. Final conclusion: Inclusion justified and acceptable to the validation team. |
| E2: Electricity generation in existing or new renewable or fossil fuel based captive power plant(s) | The alternative "E2: Electricity generation in existing or new renewable or fossil fuel based captive power plant(s)" is excluded from this PoA (see section A.4.2). | Not Included. Captive power plants are out of scope of PoA as stated in sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| E3: Electricity generation in existing and/or new grid-connected power plants | Applicable | Included Scenario E3 is included in the PoA. Final conclusion: Inclusion justified and acceptable to the validation team. |
| H1: Heat generation from LFG undertaken without being registered as CDM project activity | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| H2: Heat generation in existing or new fossil fuel fired cogeneration plant(s) | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |

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| H3: Heat generation in existing or new renewable based cogeneration plant(s) | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| H4: Heat generation in existing or new fossil fuel based boiler(s), air heater(s), glass melting furnace(s) or kiln(s) | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| H5: Heat generation in existing or new renewable energy based boiler(s), air heater(s), glass melting furnace(s) or kiln(s) | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| H6: Any other source, such as district heat and | Not Applicable | Not Included Heat Generation is not included in the PoA/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| H7: Other heat generation technologies (e.g. heat pumps or solar energy). | Not Applicable | Not Included Heat Generation is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |
| For the supply of LFG to a natural gas distribution network, the baseline is assumed to be the supply with natural gas. | Not Applicable | Not Included Supply of LFG to a natural gas distribution network is not included in the PoA as per sec. A.4.2 of PoA-DD/03/. Final conclusion: Exclusion justified and acceptable to the validation team. |

Based on above assessment validation team confirms the alternative scenarios applicable to the project activity are:

| Scenario | Alternatives | | | Description of situation |
|----------|--------------|-------------|------|--|
| | landfill gas | Electricity | Heat | |
| 1 | LFG 1 | n.a. | n.a. | Project activity only flaring of LFG without being registered under CDM. (CPA TYPE F) |
| 2 | LFG 2 | n.a. | n.a. | Atmospheric release of the LFG or capture of LFG and destruction through flaring to comply with regulations or contractual requirements, or to address safety and odour concerns. (CPA TYPE F) |

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| 3 | LFG 1 | E 1 | n.a. | Project activity including power generation from LFG without being registered as a CDM project activity. (CPA TYPE EG) |
| 4 | LFG 2 | E 3 | n.a. | Atmospheric release of the LFG and electricity would have been generated by the existing grid connected power plants as continuation of the situation before the project activity. (CPA TYPE EG) |

After thorough review of the indicated options, as well as based on validation team's knowledge and expertise in this field, DoE confirms that the indicated options are reasonable and the provided list is complete when compared with the requirements of the applied methodology.

Step 1b of the applied tool identification of the baseline scenario requires the elimination of any options that do not comply with legal or regulatory requirements. This has been confirmed in PoA-DD by providing a list of Laws and regulations that the scenarios are compliant with. All the scenarios are compliant with the applicable Laws and regulations /B18/, checked and confirmed by the validation team.

Step 2 of the applied approach for the identification of the baseline scenario requires barrier analysis. Implementation of scenarios 3 and 4 identified in Step 1a are prevented by the barriers. However if the barrier can be mitigated by additional financial means can be quantified and represented as costs and should not be identified as a barrier for implementation of project while conducting the barrier analysis, but rather should be considered in the framework of investment analysis. Hence no scenario is applicable for barrier analysis. No scenario is eliminated in step 2b.

Step 3 requires the presentation comparison of the economic or financial attractiveness of the alternative scenarios remaining after Step 2 by conducting an investment analysis. This is required to demonstrate additonality.

Based on above and review of PoA DD /03/, all CPA shall require to take above considered alternative scenario into consideration and further by using investment analysis (as explained in section 3.8 below) shall establish the baseline and additionality of the CPAs of the PoA. This confirms to the requirement of combined tool(= to the requirement of applied methodology) and § 81 & § 82 of VVM ver 01.2. Validation team based on review of PoA DD /03/ confirms that the definition of the geographical boundary for the PoA in terms of a geographical area i.e. within RSA (within which all CPAs included in the PoA will be implemented) has been transparently defined and it take into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary are reflected in the determination of the baseline. This confirms to the requirement of §6 (b) of EB 55 annex 38.

3.8 Additionality

3.8.1 Prior consideration of CDM

As per § 4 of annex 13, EB 62 /B15/, "Guidelines for the demonstration and assessment of prior consideration of the CDM" do not apply to PoAs, as at present it is expected that no component of the programme will commence prior to the start date of validation of the PoA.

3.8.2 Additionality of PoA

The description under the PoA DD /03/ demonstrates the compliance of § 6(e) of annex 38 of EB 55 /B16/. The stepwise validation of the same is summarized below:

| Relevant text of § 6(e) of annex 38 of EB 55 | Assessment of the compliance |
|---|--|
| The proposed PoA is a voluntary coordinated action; | Based on the description provided in the PoA-DD /03/ and the on-site interviews with CME, validation team confirms that the proposed |

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| | <p>program is voluntary coordinated action by the CME. CME has also provided an undertaking of voluntary participation under CDM /25/. Furthermore the LoA /06/ from the host country DNA clearly mentions that it authorizes ENER-G Systems (Pty) Ltd as project participant and the CME. It also confirms that South Africa participates voluntarily in the CDM and in the project. Also, as per minimum requirement for waste disposal by landfill /14/, it is not a requirement for communal landfills to have landfill gas controls.</p> <p>Hence validation team confirms that the proposed PoA is a voluntary coordinated action.</p> |
| <p>If the PoA is implementing a voluntary coordinated action, it would not be implemented in the absence of the PoA;</p> | <p>PoA-DD /03/ clearly states that the PoA is implementing a voluntary coordinated action and it would not be implemented in the absence of the PoA.</p> <p>As stated in PoA-DD /03/, TYPE F CPAs (which have no other source of revenue than CER sales), also TYPE EG CPAs (with the risks, costs and investments involved) require carbon revenue to be additional. Barriers have been identified that would prevent Type EG CPA to be successful if no carbon revenue would be obtained. These barriers can be monetized and quantified. As per § 7 of EB 50 Annex 13/B26/, “if the barriers can be mitigated by additional financial means can be quantified and represented as costs and should not be identified as a barrier for implementation of project while conducting the barrier analysis, but rather should be considered in the framework of investment analysis”. Hence, investment analysis has been correctly provided to prove the additionality of the CPAs of the PoA. Also, a common practice analysis would be done after investment analysis, to limit the addition of CPAs once they become common practice/03/.</p> <p>Hence additionality shall be demonstrated by each CPA of the PoA using criteria provided in the section E.5.1 of the POA DD /03/, additionality demonstration is also identified as one of the eligibility criteria for the inclusion of any CPA in the POA. Validation team confirms this inline with the requirements of PoA § 73 of EB 47 meeting report, which requires additionality is to be demonstrated either at the PoA level or at CPA level, for the subject PoA, CME opted to do on CPA level and hence acceptable to the validation team.</p> |
| <p>If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;</p> | <p>Not Applicable for this PoA</p> |
| <p>If mandatory a policy/regulation is enforced, the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.</p> | <p>Not Applicable for this PoA</p> |

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The additionality of the programme has been presented in section A.4.3 of the PoA-DD /03/. As the additionality would be demonstrated at the CPA level guidelines have been provided to ensure that all CPAs use “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 04.0.0)/B05/.

As an outcome of step 2 of the tool “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 04.0.0), /B05/ all the alternative scenarios would be compared for the economic or financial attractiveness of the alternative scenarios in the CPA.

As identified in section A.4.3 of PoA-DD, TYPE F CPAs which have no other source of revenue other than CER sales and for TYPE EG CPAs risks are associated with costs and investment. These barriers associated with investment can however be monetized and mitigated with additional financial means and as per § 7 of EB 50 Annex 13 /B26/ should not be identified as barriers rather should be considered in the framework of investment analysis. Investment Analysis cannot be done at PoA level and shall be done for each CPA at CPA level.

Based on above validation team confirms to the requirement of the §6 (e) and § 15(a) of EB 55 annex 38/B16/.

3.8.3 Approach for demonstrating CPA Additionality

As the PoA applies the large-scale methodology ACM0001 version 13 /B04/, therefore the additionality can be demonstrated using the “Combined tool to identify the baseline scenario and demonstrate additionality” (Version 04.0.0).” /B05/

3.8.3.1 Investment Analysis

In line with the requirements of Step 3 of the tool, PoA-DD /03/ indicates two different approaches for different types of CPAs.

- Type F

For the CPA type F scenarios 1 and 2 will be compared using the project IRR as the financial indicator/03/. Eligibility criteria for CPA inclusion ensure that project IRR is used as a financial indicator for benchmark analysis for CPA TYPE F. As stated in PoA-DD /03/ following values are to be used in case of Type F, based on the “Guidelines on the Assessment of Investment Analysis” version 5/B15/.

- Type EG

For the CPA Types EG scenarios 3 and 4 will be compared using the project IRR as the financial indicator. Eligibility criteria for CPA inclusion ensure that the project IRR is used as the financial indicator for CPA TYPE F and TYPE EG when performing the investment analysis.. As stated in PoA-DD /03/ following values are to be used in case of Type EG, based on the “Guidelines on the Assessment of Investment Analysis” version 5 /B14/.

Appropriateness of the approach of additionality and choice of input parameters at CPA level is detailed below:

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| Parameter | Justification in PoA-DD/03/ | Assessment by Validation team |
|------------------------------------|--|---|
| Type of CPA: F | | |
| Type of investment analysis | Benchmark Analysis For the CPA Type F scenarios 1 and 2 will be compared using the project IRR as the financial indicator. The CPA shall use the excel tool made available by the CME for this analysis (WI-CME-GEN-57 LFG fin model). | For this type of CPA <i>“the baseline does not require Investment”</i> . According to “Guidelines on the assessment of investment analysis”, version 05/B14/, <i>“the benchmark approach is therefore suited to circumstances where the baseline does not require investment”</i> , CPA type F of the PoA use benchmark analysis as per § 19 of EB 62 Annex 5/B14/. Hence, acceptable to validation team |
| Financial indicator | Pre-tax project IRR For the CPA Type F scenarios 1 and 2 will be compared using the project IRR as the financial indicator. | Pre-tax project IRR has been used as the financial indicator and meets the requirements of § 11 of EB 62 Annex 5/B14/. Hence, acceptable to validation team. |
| Benchmark | Average prime interest rate of South Africa of the past 5 years (see Table 8 Table 6 below) is the financial benchmark | As provided in §12 of EB 62 Annex 5/B14/, local commercial lending rate could be used as a benchmark for project IRR. Hence, acceptable to validation team. |
| Type of CPA: EG | | |
| Type of investment analysis | Benchmark Analysis For the CPA Types EG scenarios 3 and 4 will be compared using the project IRR as the financial indicator. The CPA shall use the excel tool made available by the CME for this analysis (WI-CME-GEN-57 LFG fin model). | As this type of CPA involves an alternative of supply of electricity from a grid, CPA type EG of PoA use benchmark analysis as per § 19 of EB 62 Annex 5/B14/. Hence, benchmark approach acceptable to the validation team. |
| Financial indicator | Pre-tax project IRR For the CPA Types EG scenarios 3 and 4 will be compared using the project IRR as the financial indicator. | Pre-tax project IRR has been used as the financial indicator and meets the requirements of § 11 of EB 62 Annex 5/B14/. Hence, acceptable to the validation team. |
| Benchmark | Average prime interest rate of South Africa of the past 5 years (see Table 8 Table 6 below) is the financial benchmark | As provided in §12 of EB 62 Annex 5/B14/, local commercial lending rate could be used as a benchmark for project IRR. Hence, acceptable to the validation team. |
| Input parameters | | |
| Electricity tariff | The Tariff offered under the REFIT (renewable energy feed in tariff) scheme does not have to be considered for the CPAs under this PoA. A CPA may use the MEGAFLEX tariff published by Eskom in their annual Tariff Book (or it's subsequent officially published document). The CPA will use the tariff published at the time when the investment decision was made or at the time of inclusion of the CPA. | Due to the uncertainty of REFIT scheme/20/ /21/, the CPAs under this PoA do not have to use REFIT tariff. This was cross-checked with the news items on REFIT and was confirmed that it has been abandoned by Department of Energy/B24-a/. Although Independent Power Process has been introduced by Eskom in South Africa, but the prices of electricity tariff would vary on the |

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| | | <p>auction process and demand for the renewable energy/B24-b/.</p> <p>As Eskom has defined electricity tariffs in South Africa for Urban Areas as Megaflex and thus the Megaflex rates are used as the electricity tariff in the PoA. Annual Tariff Book /17/ published by Eskom is publicly available and pre-tax rates for Megaflex would be used. Tariff rates fixed by the national electricity regulator, Eskom are acceptable to the the Validation Team.</p> |
| Assessment period | For all CPAs under the PoA the assessment period is taken as 15 years. | <p>Assessment period of 15 years has been opted for the investment analysis for CPAs in PoA and meets the requirements of § 3 of EB 62 Annex 5/B14/.</p> <p>Hence, acceptable to the validation team.</p> |
| Potential profit from realization of the assets after assessment period | 0 | <p>Potential profit from realization of the assets after assessment period is taken as 0 as per engineers' report/ 27/. This is as per local accounting regulations and practices.</p> <p>Hence, accepted to validation team.</p> |
| Tax | IRR is calculated pre-tax; hence taxation is not included as an expense when calculating project IRR | <p>As pre-tax project IRR is chosen as financial indicator, tax is not considered.</p> <p>Hence, acceptable to the validation team.</p> |
| Time of investment decision taking | Shall be determined and stated. All input values shall be valid and applicable at the time of investment decision taken. | <p>Time of investment decision taking shall be determined and stated for CPAs as per § 6 of EB 62 Annex 5/B14/.</p> <p>Hence, acceptable to the validation team.</p> |
| Cost of financing expenditure | Cost of financing expenditure such as interest and loan repayments are not included in the IRR calculation. | <p>Cost of financing expenditure has been excluded as per § 9 of EB 62 Annex 5/B14/.</p> <p>Hence, acceptable to the validation team.</p> |
| Assets depreciation | For all CPAs under the PoA the asset depreciation is taken as 15 years (Golder Report) | <p>Assets depreciation period is taken as 15 years and meets the requirements of § 3 of EB 62 Annex 5/B14/.</p> <p>Hence, acceptable to the validation team.</p> |
| Departure range of sensitivity analysis | The CPA proponent shall undertake a sensitivity analysis and present its results in the CPA-DD. Each variables that constitute more than 20% of either total project costs or total project revenues is to be subjected to a variation of at least 10% as per §20 of the Guidelines On The Assessment Of Investment Analysis version 5 (EB62 Annex 5). | <p>Variation or departure range for sensitivity analysis has been set as atleast 10 % and meets the requirements of § 20 and 21 of EB 62 Annex 5/B14/.</p> <p>Hence, acceptable to the validation team.</p> |

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3.9 Emission reduction from a typical CPA of the PoA

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the PoA-DD /03/ and the g- CPA-DD /04/. The emission reductions of the CPAs of the PoA would be calculated using the formulae mentioned in the applied methodology ACM0001 (version 13) /B04/.

Validation team based on the review of PoA DD /03/ and g- CPA DD /04/, confirms that the formulae are correctly presented for the determination of emission reductions at CPA level. The parameters and equations presented in the PoA-DD /03/, as well as other applicable documents, have been compared with the information and requirements presented in the methodology. An equation comparison has also been made to ensure consistency between all the formulae presented in the PoA-DD, g- CPA-DD, calculation files (for the real case CPA DD), methodology ACM0001 (version 13) /B04/.

According to the applied methodology (ACM0001, version13), the emission reductions (ER_y) by the project during the crediting period is the difference between the baseline emissions (BE_y) and project emissions (PE_y) which is expressed as follows:

$$ER_y = BE_y - PE_y$$

No leakage emissions are accounted under this methodology.

Baseline Emissions

The Baseline emissions associated with the PoA are calculated as:

$$BE_y = BE_{CH_4,y} + BE_{EC,y}$$

where,

$BE_{CH_4,y}$ = Baseline emissions of methane from the SWDS in year y (t CO₂e/yr)

$BE_{EC,y}$ = Baseline emissions associated with electricity generation in year y (t CO₂/yr)

Baseline emissions due to heat generation and associated with natural gas are not included in the PoA as heat generation and supply of natural gas is not included within the scope of PoA.

$$BE_{HG,y}=0$$

$$BE_{NG,y}=0$$

The *ex-ante* baseline emissions are calculated taking into account the amount of methane generated from the SWDS, which are determined as per the *Tool: Emissions from solid waste disposal sites* (Version 06.0.1). The *ex-post* baseline emissions will be calculated based on the monitoring of the amount of methane captured, flared and/ or used for electricity generation.

In case of electricity generation, electricity in the baseline scenario would be supplied by the grid. Baseline emissions associated with electricity generation are calculated using "Tool to calculate baseline, project and/or leakage emissions from electricity consumption" (Version 1) /B08/.

$$BE_{EC,y} = \sum_j EC_{BL,k,y} * EF_{EL,k,y} * (1 + TDL_{k,y})$$

$EC_{BL,k,y}$ = Quantity of electricity that would be consumed by the baseline electricity consumption source k in year y (MWh/yr)

$EF_{EL,k,y}$ = Emission factor for electricity generation for source k in year y (tCO₂/MWh)

$TDL_{k,y}$ = Average technical transmission and distribution losses for providing electricity to source k in year y

$$EF_{EL,k,y} = EF_{grid,CM,y}$$

CO₂ emission factor of the grid ($EF_{grid,CM,y}$) was calculated according to Tool to calculate the emission factor for an electricity system, version 02.2.1 /B22/. The combined margin emission factor (CM) of the electricity system consists of the combination of operating margin (OM) and build margin (BM).

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The table below describes how the validation team cross-checked the calculation of emission factor of the grid ($EF_{grid,CM,y}$):

| Step | Description | Determination and assessment | Justified |
|------|---|---|--|
| 1 | Identify the relevant electricity systems. | The project electricity system includes all power plants attached to the Republic of South Africa national grid. The electricity system in South Africa is a single system, i.e. South African national grid as confirmed by Eskom Integrated report /18/. The DNA of South Africa has not published the delineation of the project electricity system and connected electricity systems, however the national utility, Eskom, has published it /B23//35/. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2 | Choose whether to include off-grid power plants in the project electricity system (optional). | Option I (Only grid power plants are included in the calculation) is selected. Off-grid power plants play a very minor role in South Africa's power generation. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Select a method to determine the operating margin (OM). | Simple OM (out of the four methods provided in the tool /B22/) is applied for the calculation of the operating margin, since the low-cost/must-run resources constitute less than 50% of total South African grid generation. The average values of the five most recent years shows that coal-fired power plants constitute approximately 93% of the South African generation capacity, whereas hydro and nuclear, both classified as low-cost and must-run power plants, constitute almost 6% of the national grid. /35/ /B23/ The validation team confirms that data applied is consistent with the report published by Eskom. Thus the selection of OM calculation method is justified. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 4 | Calculate the operating margin emission factor ($EF_{grid,OM,y}$) according to the selected method. | In the PoA DD, Option A, is selected to calculate the operating margin emission factor. The validation team confirms that data of quantity of electricity generated, types of fuel used and consumption of each fuel type are the latest 3 years data, 2009 – 2011, most recent data available at the time of submission of the CDM-DDs to the DOE for validation and they are sourced from available data published by the Eskom /35/ /B23/ and IPCC which is the default value. Therefore, the applied OM = 1.02 t CO₂/MWh is justified. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 5 | Calculate the build margin (BM) emission factor. | Option 1) is chosen in which the BM is calculated ex ante for the first crediting period of the PoA based on the most recent available data i.e for the year 2011. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

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|---|--|--|--|
| | | <p>Validation team based on document review /35/ /B23/ confirms that the annual electricity generation of the set of five power units (SET5-units) is larger than the annual electricity generation of the set of power capacity additions in the electricity system that comprise 20% of the system generation and that have been built most recently (AEG>20%) and the power units in SET_{sample} started to supply electricity to the grid less than 10 years. Also they do not include registered CDM projects.</p> <p>The validation team confirms that The BM calculation is correctly applied complying with the Tool. Therefore, BM = 0.87 t CO₂/MWh is justified.</p> | |
| 6 | Calculate the combined margin (CM) emissions factor. | <p>According to the “<i>Tool to calculate the emission factor for an electricity system</i>” (Version 02.2.1), for projects other than wind and solar the following default values are used for weights for the operating margin and build margin emission factors: $w_{OM} = 0.5$ and $w_{BM} = 0.5$. The CM has been calculated for the first crediting period.</p> <p>The weighting of OM emission factor and BM emission factor for calculate CM emission factor is categorized by type of CDM project.</p> <p>The calculation of CM = 0.94 t CO₂/MWh is justified.</p> | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Validation team further compared the arrived value of OM and BM with other CDM registered renewable energy project (though it for different data vintage, landfill gas project – UNFCCC ref no 5692) and found that the OM and BM values are comparable with this project.

Further comparison with the GEF considered in the EB 70,annex 13, annotations “[Draft Standardized baseline: Grid emission factor for the Southern African power pool](#)” (which is applicable for RSA as well after approval) reveals that Combined margin CO₂ emission factor for the project electricity system applicable to all project activities other than wind and solar for the first crediting period is 0.9644 t CO₂/MWh, hence the combined margin emission factor calculated by the proposed PoA for the first Crediting period is conservative as it leads to a lower value of GEF and hence acceptable to the validation team.

Project Emissions

The project emissions associated with the PoA are calculates as:

$$PE_y = PE_{EC,y} + PE_{FC,y}$$

where,

$PE_{EC,y}$ = Emissions from consumption of electricity due to the project activity in year y (t CO₂/yr)

$PE_{FC,y}$ = Emissions from consumption of fossil fuels due to the project activity, for purpose other than electricity generation, in year y (t CO₂/yr)

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$$PE_{EC,y} = \sum_j EC_{PJ,j,y} * EF_{EL,j,y} * (1 + TDL_{j,y})$$

where,

$EC_{PJ,j,y}$ = Quantity of electricity consumed by the project electricity consumption source j in year y (MWh/yr)

$EF_{EL,j,y}$ = Emission factor for electricity generation for source j in year y (tCO₂/MWh)

$TDL_{j,y}$ = Average technical transmission and distribution losses for providing electricity to source j in year y

Quantity of electricity consumed ($EC_{PJ,j,y}$) is measured as a monitoring parameter. $EF_{EL,j,y}$ has been calculated for the project activity for the first crediting period according to the process described for calculating $EF_{EL,k,y}$ in baseline emissions. Value for transmission and distribution losses for providing electricity $TDL_{j,y}$ is taken from eskom data./B23/

The project emissions due to fossil fuel consumption are not included in PoA as no fossil fuel would be consumed for purposes other than electricity generation in the CPAs of the PoA. It was confirmed during the onsite interview.

3.10 Monitoring Plan of a typical CPA

The monitoring plan presented in the PoA-DD and g- CPA DD complies with the requirements of the applicable methodology. The validation team has checked all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The validation team through document review and interviews with the relevant personnel has reviewed the procedures. The information provided has allowed the validation team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the CME of the PoA and the CPA implementer.

The management system document of the CME provide sufficient information which forms the basis of confirmation by the validation team on the issues related but not limited to the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the programme. Therefore, the CME and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified. This confirms to the requirement of the §6 (j) of EB 55 annex 38.

3.10.1 Parameters determined ex-ante

Following are the parameters as per the PoA DD /03/, fixed either ex-ante at the PoA level or shall be fixed ex-ante at the time of inclusion of the CPA:

- Baseline emissions of methane from the SWDS in year y ($BE_{CH_4,y}$)
- Baseline emissions associated with electricity generation in year y ($BE_{EC,y}$)
- Baseline emissions associated with heat generation in year y ($BE_{HG,y}$)
- Baseline emissions associated with natural gas use in year y ($BE_{NG,y}$)
- Fraction of methane in the LFG that would be oxidized in the top layer of the SWDS in the baseline (OX_{top_layer}).
- Amount of methane in the LFG which is flared and/or used in the project activity in year y ($F_{CH_4,PJ,y}$)
- Amount of methane in the LFG that would be flared in the baseline in year y ($F_{CH_4,BL,y}$)
- Global warming potential of CH₄ (GWP_{CH_4}).
- Efficiency of the LFG capture system that will be installed in the project activity (η_{PJ})
- Amount of methane in the LFG that is generated from the SWDS in the baseline scenario in year y ($BE_{CH_4,SWDS,y}$)
- Model correction factor to account for model uncertainties for year y (ϕ_y)
- Fraction of methane captured at the SWDS and flared, combusted or used in another manner

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- that prevents the emissions of methane to the atmosphere in year y (f_y)
- Oxidation factor (reflecting the amount of methane from SWDS that is oxidised in the soil or other material covering the waste) (OX).
- Fraction of methane in the landfill gas (volume fraction) (F)
- Fraction of degradable organic carbon (DOC) that decomposes under the specific conditions occurring in the SWDS for year y (weight fraction) ($DOC_{f,y}$)
- Methane correction factor for year y (MCF_y)
- Fraction of degradable organic carbon in the waste type j (weight fraction) (DOC_j)
- Decay rate for the waste type j (1 / yr) (k_j)
- Amount of solid waste type j disposed or prevented from disposal in the SWDS in the year x (t) ($W_{j,x}$)
- Emissions from consumption of electricity due to the project activity in year y ($PE_{EC,y}$)
- Emissions from consumption of fossil fuels due to the project activity, for purpose other than electricity generation, in year y ($PE_{FC,y}$)
- Quantity of electricity consumed by the project electricity consumption source j in year y ($EC_{P,j,y}$)
- Emission factor for electricity supplied by the grid for source j in year y ($EF_{EL,j,y} = EF_{grid,CM,y}$)
- Average technical transmission and distribution losses for providing grid electricity to source j in year y ($TDL_{j,y}$)
- Density of methane at normal conditions ($\rho_{CH_4,n}$)
- Flare efficiency in the hour h ($\eta_{flare,h}$)

3.10.2 Parameters determined ex-post

Following are the parameters as per the PoA-DD /03/, shall be monitored (based on the type of CPA) ex-post by the CPAs of the PoA:

- Management of SWDS
- Amount of methane in the LFG which is flared due to a requirement in year y ($F_{CH_4,BL,R,y}$)
- Fraction of LFG that is required to be flared due to a requirement in year y ($p_{reg,y}$)
- Net amount of electricity generated using LFG in year y ($EG_{P,j,y}$)
- Operation of the power generation equipment (gen sets) that consumes the LFG ($Op_{EL,h}$)
- Operation of the flare equipment that consumes the LFG ($Op_{flare,h}$)
- Quantity of electricity consumed by the project electricity consumption source j in year y ($EC_{P,j,y} = EC_{P,j,y}$)
- Fraction of methane captured at the SWDS and flared, combusted or used in another manner that prevents the emissions of methane to the atmosphere in year y ($f_y = f$)
- Mass fraction of methane in the residual gas on a dry basis in hour h ($fm_{CH_4,RG,h}$)
- Volumetric flow rate of the residual gas in dry basis at normal conditions in the hour h ($FM_{RG,h}$)
- Temperature in the exhaust gas of the flare (T_{flare})
- Mass fraction of CH_4 in in the gaseous stream to the flare and electricity generation equipment in time interval t ($m_{CH_4,t}$)
- Mass flow of the gaseous stream to the flare in time interval t at normal conditions ($M_{t,n, sent_flare}$)

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- Mass flow of the gaseous stream to the electricity generation equipment in time interval t at normal conditions ($M_{t,n,EL}$)

3.10.3 Monitoring and reporting system and quality assurance

The operational and management structure of the CME in context of the PoA has been clearly described in the PoA-DD /03/ and checked from the review of CME Manual /28/ provided by the CME. The responsibilities and institutional arrangements for data collection and archiving have been clearly provided in the same document /28/.

As stated in PoA-DD /03/, the coordinating entity will implement a verification system on the PoA level to determine the GHG abatement created by the PoA as a whole. The resulting programme database includes the data sets that can be directly attributed to each CPA within the PoA. Thereby it allows for unambiguous determination of the emission reductions achieved by each CPA. Monitoring reports will be prepared separately for each of the CPAs for the purpose of verification and request for issuance of CERs.

The data will be collected through manually entering into workbook. Secondary data would be aggregated and CME will ensure correctness and consistency of aggregated data.

3.11 Environmental Impacts

It has been indicated in the PoA DD /03/, that the environmental analysis shall be done at the individual CPA level. This is deemed appropriate in the context of the CPAs of the PoA.

3.12 Local stakeholders consultation

It has been indicated in the PoA DD /03/, that the local stakeholder consultation shall be done at the individual CPA level. This is deemed appropriate in the context of the CPAs of the PoA..

4 Comments By Parties, Stakeholders And NGOs

The PoA-DD /01/, g-CPA-DD/05-1/ and real-case CPA-DD/02/, all dated 21/11/2011 were made publicly available on UNFCCC's website:

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/TMX78MWOLKQ7K1MQYUTE3MKXB0CL7R/view.html>) and parties, stakeholders and NGOs were invited through the CDM website to provide comments during a 30 days period from 24/11/2011 to 23/12/2011, where no comment was received.

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APPENDIX A

VALIDATION PROTOCOL

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Validation Protocol CDM-PoA-DD

Table 1 Conformity of CDM Programme of Activities

| CHECKLIST TOPIC / QUESTION | Ref. | Validation Team Comments | Draft concl. | Final concl. |
|---|---|---|--------------|--------------|
| A. GENERAL DESCRIPTION OF CDM PROGRAMME OF ACTIVITIES (POA) | | | | |
| A.1. Title of the CDM programme of activities (PoA) | | | | |
| A.1.1. Does the used PoA title clearly enable to identify the unique CDM programme of activities? | /PoA-DD/ /PoA-DD-F/ /dna/ /unfccc/ | The title stated in the PoA-DD clearly enables to identify the unique CDM programme of activities. The same was verified from the host country DNA^{/DNA/} and UNFCCC^{/unfccc/} website. However Letter of Approval from the host country DNA has not been submitted by the PP and hence CAR 1 is raised. | CAR1 | OK |
| A.1.2. Are current version number and the date of document completion given in section A.1 of the PoA-DD? | /PoA-DD/ /PoA-DD-F/ | Yes, the GSP-PoA-DD has indicated version number 1.0, dated 21/11/2011. | OK | OK |
| A.1.3. Is this consistent with the time line of the programme's history? | /PoA-DD/ /PoA-DD-F/ | Yes | OK | OK |
| A.2. Description of the programme of activities | | | | |
| A.2.1. Is the description delivering a transparent overview of the general operating and implementing framework of the PoA? | /PoA-DD/ /PoA-DD-F/ | Yes, it has been described clearly that Landfill Carbon(Pty) Ltd. will be the coordinating/managing entity of the PoA. The CDM programme activities (CPAs) included in the PoA will be implemented in the Republic of South Africa. Moreover, section A.3 describes few companies which contradicts with the statement regarding general operating and implementing framework and role of the CME. A clarification is required for the same. | CL1 | OK |
| A.2.2. Is the policy/measure or stated goal of the PoA clearly and unambiguously presented? | /PoA-DD/ /PoA-DD-F/ /EB55-A-38/ | On this section following points are raised: 1. A description of the policy/measure or stated goal that the PoA seeks to promote is clearly and transparently described under section A.2. However The PoA claims that the PoA involves the transfer of technology for efficient capture and | CL2 | OK |

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| | | utilisation of the LFG which has not been substantiated and or explained | | | |
| A.2.3. | Is there a valid confirmation that the proposed PoA is a voluntary action by the coordinating/managing entity? | /PoA-DD/ /PoA-DD-F/ /EB55-A-38/ | The description in section A.3 indicates as if the PoA is voluntary action But CME has not demonstrated in PoA-DD or otherwise that the proposed PoA is a voluntary action by the coordinating/managing entity; hence CAR has been raised. | CAR-2 | OK |
| A.2.4. | Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance? | /PoA-DD/ /PoA-DD-F/ | Description of the technology measure to be applied under the proposed PoA is not sufficient and transparent under section A.4.2.1 of the PoA-DD. Further, The technology does not provide and describe any technology other than few components and the system. The explanation that how the PoA will reduce the green house emission and also description how the project activity is environmentally safe is not transparently described. | CAR-3 | OK |
| A.2.5. | Is the brief explanation how the programme will reduce greenhouse gas emission transparent and suitable? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.2.4 above. Pending Closure of CAR 3. | Depends on closure of CAR 3 | OK |
| A.3. Coordinating/managing entity and participants of CDM-PoA | | | | | |
| A.3.1. | Is the form required for the indication of project participants correctly applied? | /PoA-DD/ /PoA-DD-F/ | Yes, the form has been correctly applied in regards with the information on the CME of the PoA, which will communicate with the board. However the information about the project participants being registered in relation to the PoA is not provided in the section A.3 of PoA-DD. Section A.3 also not provided a clear description whether the parties involved is private or public entity and the project consultant described under section A.3 is ambiguous. | CAR-4 | OK |
| A.3.2. | Is the participation of the listed entities or Parties in the PoA confirmed by each one of them? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.3.1 of this report. | Refer CAR-4 | OK |
| A.3.3. | Is all information on participants / Parties provided in consistency with details provided by further chapters of the PoA-DD (in particular annex 1)? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.3.1 of this report. | Refer CAR-4 | OK |
| A.3.4. | Is it evident that the coordinating or | /PoA-DD/ | It is not evident from section A.3 or otherwise PoA-DD that CME of the | CAR-5 | OK |

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| managing entity of the PoA is the entity which communicates with the Executive Board (EB)? | /PoA-DD- F/ | PoA is the entity, which will communicate with the EB. | | |
| A.4. Technical description of the CDM programme of activities | | | | |
| A.4.1. Location of the programme of activities | | | | |
| A.4.1.1. Does the information provided on the location of the programme allow for a clear definition identification of the boundary for the PoA in terms of a geographical area, within which all CPAs included in this PoA will be implemented? | /PoA-DD/ /PoA-DD- F/ | The CPAs under the PoA will be implemented throughout the host country i.e., Republic of South Africa. | OK | OK |
| A.4.1.2. Is the consideration of all applicable national and/or sectoral policies and regulations of each host country within the boundary evident and substantiated? | /PoA-DD/ /PoA-DD- F/ | The PoA-DD is clear regarding the description of the policy/measure or stated goal that the PoA seeks to promote. | OK | OK |
| A.4.1.3. Is/are the Host Party(ies) stated? | /PoA-DD/ /PoA-DD- F/ | Yes, Republic of South Africa has been identified as the host party. | OK | OK |
| A.4.2. Description of a typical CDM programme activity (CPA) | | | | |
| A.4.2.1. Is it unambiguously stated which technology or measures are to be employed by the CPA? | /PoA-DD/ /PoA-DD- F/ | Section A.4.2.1 of the webhosted PoA-DD does not describe technology or measures to be employed by the CPA. Moreover, type and category of the proposed PoA is also not mentioned under this section. | CL-3 | OK |
| A.4.2.2. Is the type and category of project activities correctly identified and indicated? | /PoA-DD/ /PoA-DD- F/ | Type and category of the proposed PoA is not mentioned under section A.4.2.1. Moreover please refer A.4.2.1 above. | Refer CL-3 | OK |
| A.4.2.3. Does the technical design of the project activity reflect current good practices? | /PoA-DD/ /PoA-DD- F/ /ESCOM/ | The PoA envisages destruction and or use of LFG using gas engine generators to produce electricity. Production of electricity by renewable resource technology in the region is a good practice. However the applied technology is not described in detail in PoA-DD. Please refer section A.2.2; A.2.4 | Depends on closure of CL-2 | OK |
| A.4.2.4. Does the implementation of the project activity require any technology transfer from | /PoA-DD/ /PoA-DD- | PoA-DD claims of Technology transfer applied in the project. However it is not very clear. | Depends on | OK |

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| Annex-I-countries to the host country (ies)? | F/ | | closure of CL 2 | |
| A.4.2.5. Is the technology implemented by the project activity environmentally safe? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.2.4 above. | Depends on closure of CAR 3 | OK |
| A.4.2.6. Is the information provided in compliance with actual situation or planning? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.2.4 above. | Depends on closure of CAR 3 | OK |
| A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country? | /PoA-DD/ /PoA-DD-F/ | Closed Flare is suggested for destruction of LFG and Power production is suggested as use of LFG but the detail of technology applied is not evident. However please refer A.2.2; A.2.4 above. | Depends on closure of CL 2 | OK |
| A.4.2.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period? | /PoA-DD/ /PoA-DD-F/ | Project does require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period, Interview with PP revealed, that technology provider will provide initial training. | OK | OK |
| A.4.2.9. Is information available on the demand and requirements for training and maintenance? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.4.2.8 above. | OK | OK |
| A.4.2.10. Are there clear and unambiguous eligibility criteria for the inclusion of a CPA into the PoA? (Annex 3 of EB 65 §14) | /PoA-DD/ /PoA-DD-F/ | In section A.4.2.2 of the CDM PoA-DD, eligibility criteria for the inclusion of CPA into the PoA, does not provide in accordance with the latest requirements stipulated as per §14 Annex 3 of EB 65. | CAR-6 | OK |
| A.4.3. Description of how the anthropogenic emissions of GHG by sources are reduced by a CPA below those that would have occurred in the absence of the registered PoA (assessment and demonstration of additionality of the PoA as a whole) | | | | |
| A.4.3.1. Is it evident and clearly documented that the proposed PoA is a voluntary coordinated action? | /PoA-DD/ /PoA-DD-F/ /EB55A38/ | In the PoA-DD it is not evident and clearly documented that the proposed PoA is a voluntary coordinated action by the CME. Hence GAR 2 is raised. Please refer section A.2.3 above. | Depends on closure of CAR 2 | OK |
| A.4.3.2. Is it evident and substantiated that this | /PoA-DD/ | As per section A.4.3 of the PoA DD, the additionality demonstration is | OK | OK |

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| voluntary coordinated action would not be implemented in the absence of the PoA? | /PoA-DD-F/ /EB47/ | done on the CPA level and not at the PoA level. The same is acceptable to the validation team as it is in accordance with the §73 of EB 47. | | |
| A.4.3.3. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation this would not be enforced otherwise? | /PoA-DD/ /PoA-DD-F/ /EB47/ | As per section A.4.3 of the PoA DD, the additionality demonstration is done on the CPA level and not at the PoA level. The same is acceptable to the validation team as it is in accordance with the §73 of EB 47. | OK | OK |
| A.4.3.4. Is it evident and substantiated that in case the PoA implements a mandatory policy or regulation that is enforced the PoA will lead to a greater level of enforcement? | /PoA-DD/ /PoA-DD-F/ | NA | OK | OK |
| A.4.4. Operational, management and monitoring plan for the programme of activities (PoA) | | | | |
| A.4.4.1. Is there a clear and transparent description of the operational and management arrangements established by the coordinating/managing entity? | /PoA-DD/ /PoA-DD-F/ /EB65A3/ | Section A.4.4.1 of the webhosted PoA DD is not in line with the requirements laid down under Annex 3 of EB 65 § 17 and CDM PoA DD Form version 01. This section lacks in the following: <ol style="list-style-type: none"> 1. Record keeping system and documentation control procedure for each CPA. 2. Clear definition of roles and responsibilities of personnel involved in the process of inclusion of the CPA including the provision to review their competencies. 3. Measures for continuous improvement of PoA management system. 4. Records of arrangements for training and capacity development for personnel. | CAR-7 | OK |
| A.4.4.2. Is there a record keeping system for each CPA under the PoA? | PoA-DD/ /PoA-DD-F/ /EB65A3/ | Please refer section A.4.4.1 above. | Depends on closure CAR-7 | OK |
| A.4.4.3. Is there a system or procedure to avoid double accounting, i.e. to avoid that an included CPA under this PoA already is a registered CDM project or CPA in another PoA? | / PoA-DD/ /PoA-DD-F/ | The PoA-DD in section A.4.4.1 although provides the provision to avoid double counting, however evidences for the same is required to be submitted to the validation team for further assessment. | CL-4 | OK |
| A.4.4.4. Is there a system or procedure to detect whether a CPA to be included in the PoA is not a de-bundled component of another | / PoA-DD/ /PoA-DD-F/ | NA (project is a large Scale) | OK | OK |

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| CPA or CDM project? | | | | |
| A.4.4.5. Are provisions in place to ensure that those operating the CPA are aware of and have agreed that their activity is being subscribed to the PoA? | PoA-DD/ /PoA-DD-F/ /EB65A3/ | Please refer section A.4.4.1 above. | Depends on closure of CAR 7 | OK |
| A.4.4.6. Is there a monitoring plan for the PoA, including a description of the proposed statistically sound sampling methods or procedures to be used by the DOE for the verification (please consider sampling among CPAs and within CPAs)? | /PoA-DD/ /PoA-DD-F/ | Monitoring plan of the PoA is not adequately and transparently described as per the CDM PoA-DD Form version 01. Section is ambiguous about the responsible entity for the monitoring. It is ambiguous for the reason like one of the monitoring parameter indicates that data related to Heat generators will be recorded. But heat generation has not been proposed in the PoA. Also the work book indicated in section A.4.4.1 has not been provided for validation. | CAR 8 | OK |
| A.4.4.7. In case the coordinating/managing entity opts for a verification method that does not use sampling but verifies each CPA, does the monitoring plan provide a transparent system to ensure that no double accounting occurs and that the status of verification can be determined any time for each CPA? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.4.4.6 above. | Depends on closure of CAR 8 | OK |
| A.4.5. Public funding of the project activity | | | | |
| A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants? | /PoA-DD/ /PoA-DD-F/ | Section A.4.5 of the PoA-DD mentions that there is no public funding involved in this programme, however, the evidence that no ODA has been diverted in this project activity is required to be submitted by PP to the DOE. | CL 5 | OK |
| A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PoA-DD (in particular annex 2)? | PoA-DD/ /PoA-DD-F/ | Yes, the information is consistent with Annex 2 of the PoA-DD. Moreover please refer section A.4.5.1 above. | Depends on closure of CL 5 | OK |
| B. DURATION OF THE PROGRAMME OF ACTIVITIES | | | | |
| B.1. Starting date of the programme of activities | | | | |
| B.1.1. Is the programme's starting date clearly defined and reasonable? | /PoA-DD/ /VVS/ /unfccc/ | Starting date of the PoA is 01/05/2012 which is after the date of publication of the PoA-DD for Global Stakeholder's Comment ^{/GSC/} period. Hence starting date of PoA is accepted as reasonable. | OK | OK |

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| B.2. Length of the programme of activities (PoA) | | | | |
|---|--------------------------------|---|----------------------------|----|
| B.2.1. Is the assumed length of the PoA clearly defined by the coordinating managing entity and reasonable (max 28 years)? | /PoA-DD/ /VVS/ /EB55A38/ | Yes, the length of the PoA is taken is 28 years which is in accordance with the requirements of EB 55 Annex 38. | OK | OK |
| C. ENVIRONMENTAL ANALYSIS | | | | |
| C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken: | | | | |
| C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level? | /PoA-DD/ | As per section C.1 of the webhosted PoA-DD, the environmental analysis is done at CPA level. | OK | OK |
| C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified? | /PoA-DD/ | The choice for environmental analysis at CPA level is stated but not justified and explained in Section C1. Of PoA DD. | CL-6 | OK |
| C.2. Documentation on the analysis of the environmental impacts of the PoA, including transboundary impacts: | | | | |
| C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved? | /PoA-DD/ | As per the requirements under section C.3, PP has to explained the host Party laws/regulations, that an EIA is required for a typical CPA, included in the PoA irrespective of the choice to conduct an EIA at CPA or PoA level. However PP has described the anticipated law rather than describing the applicable law. | CL-7 | OK |
| C.2.2. Has the analysis of the environmental impacts of the project activity been sufficiently described? | /PoA-DD/ | Since, the EIA is done at CPA level, hence, this checklist question is not applicable. | NA | NA |
| C.2.3. Will the project create any adverse environmental effects? | /PoA-DD/ | Since, the EIA is done at CPA level, hence, this checklist question is not applicable. | NA | NA |
| C.2.4. Were trans-boundary environmental impacts identified in the analysis? | /PoA-DD/ | Since, the EIA is done at CPA level, hence, this checklist question is not applicable. | NA | NA |
| C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA of the PoA: | | | | |
| C.3.1. Have the identified environmental impacts been addressed in the project design sufficiently? | /PoA-DD/ | Since, the EIA is done at CPA level, hence, this checklist question is not applicable. | NA | NA |
| C.3.2. Does the project comply with environmental legislation in the host country? | /PoA-DD/ | Please refer Section C.2.1 above. | Depends on closure of CL-7 | OK |

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| C.3.3. Is, per host country laws/regulations, an environmental impact assessment necessary for a typical CPA? | /PoA-DD/ | Please refer Section C.2.1 above. | Depends on closure of CL 7 | OK |
| D. STAKEHOLDERS' COMMENTS | | | | |
| D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice: | | | | |
| D.1.1. Is there a clear statement whether the stakeholder comments will be invited at PoA or CPA level? | /PoA-DD/ | Yes, stakeholder comments will be invited at CPA level. | OK | OK |
| D.1.2. Is the choice justified in a clear and reasonable manner? | /PoA-DD/ | Justification of choice of conducting stakeholder comments at CPA level under section D.1 of the PoA-DD is not provided | CAR 9 | OK |
| D.1.3. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how comments by local stakeholders were invited? | /PoA-DD/ | Since, the stakeholder consultation will be invited at the CAP level, hence this checklist question is not applicable. | NA | NA |
| D.1.4. If the stakeholder comments will be invited at PoA level, is there a summary of the contents? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.1.5. If the stakeholder comments will be invited at PoA level, is there sufficient information provided, on how due account was taken of any comments received? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.2. Brief description how comments by local stakeholders have been invited and compiled | | | | |
| D.2.1. Have relevant stakeholders been consulted? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.2.2. Have appropriate media been used to invite comments by local stakeholders? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.2.3. 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 | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |

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| such regulations/laws? | | | | |
| D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.3. Summary of the comments received | | | | |
| D.3.1. Is a summary of the received stakeholder comments provided? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| D.4. Report on how due account was taken of any comments received | | | | |
| D.4.1. Has due account been taken of any stakeholder comments received? | /PoA-DD/ | Please refer section D.1.3 above. | NA | NA |
| E. APPLICATION OF A BASELINE AND MONITORING METHODOLOGY TO A TYPICAL CPA | | | | |
| E.1. Title and reference of the approved baseline and monitoring methodology applied to CPA included in the PoA | | | | |
| E.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated? | /CDM-PoA-DD/ /ACM0001/ | Proposed PoA under section E.1 is sufficiently provided with the information regarding the reference, version number and title of the applied methodology i.e. ACM0001. Version 11 of applied methodology is applied which is not the latest version However Request for registration based on version 11 can be made till 25 July 2012. | OK | OK |
| E.1.1.2. Is the applied version the most recent one and / or is this version still applicable? | /CDM-PoA-DD/ /ACM0001/ | Please refer section E.1 above. | OK | OK |
| E.1.1.3. Is the applied methodology and applicable tool therein is applied and approved by the board, for use in PoA? | /ACM0001/ | Yes, the applied methodology has been approved by the board for use in PoA. Also board for use under the PoA also approves the tools referred in the methodology. | OK | OK |
| E.2. Justification of the choice of the methodology and why it is applicable to a CPA | | | | |
| E.2.1.1. Is the applied methodology considered the most appropriate one? | /CDM-PoA-DD/ /ACM0001/ | Yes, the applied methodology ACM0001 is considered as most appropriate methodology for the Flaring or use of landfill gas | OK | OK |
| E.2.1.2. Does the methodology account for leakage in the context of a CPA? | /ACM0001/ | As per ACM0001, PoA being a Flaring or use of landfill gas, No leakage emissions are to be considered as per the applied methodology. | OK | OK |
| E.2.1.3. Are all applicability criteria in the methodology, the applied tools or any other methodology component referred to therein fulfilled? | /CDM-PoA-DD/ /ACM0001/ | The proposed PoA fulfils all applicability criterions of applied methodology and tools referred therein. However it does not evaluate whether the LFG in baseline scenario fulfils the partial or total atmospheric release of the gas criteria or not | GAR-10- | OK |

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| E.3. Description of the sources and gases included in the CPA boundary | | | | |
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| E.3.1.1. Does the CPA boundary include the physical and geographical location where the programme activities take place? | /CDM-PoA-DD/ /ACM0001/ | Yes, it is clearly indicated that the project boundary includes the proposed For destruction of LFG the project boundary is the site of the project activity where the gas is captured and destroyed/used. If the electricity for project activity is sourced from grid or electricity generated by the LFG captured would have been generated by power generation sources connected to the grid, the project boundary shall include all the power generation sources connected to the grid to which the project activity is connected If the electricity for project activity is from a captive generation source or electricity generated by the captured LFG would have been generated by a captive power plant, the captive power plant shall be included in the project boundary. | OK | OK |
| E.3.1.2. Are all sources and gases within the boundary considered in a clear manner? | /CDM-PoA-DD/ | Yes, all sources and gases within the project boundary are considered clearly and in accordance with the applied methodology. As per the applied methodology ACM0001 only CO ₂ & CH ₄ has been considered within the project boundary, which is appropriate and acceptable. | OK | OK |
| E.3.1.3. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD? | /CDM-PoA-DD/ /ACM0001/ /SV/ | Yes, the spatial and technological boundaries as described in PoA-DD and verified on site and discussed with PP comply with the discussion provided in the PoA-DD. | OK | OK |
| E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario: | | | | |
| E.4.1.1. Have all technically feasible baseline scenario alternatives to the PoA been identified and discussed by the PoA-DD? Why can this list be considered as being complete? | /CDM-PoA-DD/ /ACM0001/ | The description of the baseline scenario is in accordance with the applied methodology. | OK | OK |
| E.4.1.2. Does project identify correctly and exclude those options not in line with regulatory or legal requirements? | /CDM-PoA-DD/ /EB55§27/ | Based on the sectoral and local knowledge of the validation team, it can be concluded that the PP has correctly identified the baseline alternatives and excluded the options, which are not in line with the requirements of the host country. | OK | OK |
| E.4.1.3. Have applicable regulatory or legal requirements been identified? | /CDM-PoA-DD/ /EB55§27/ | Yes, all the applicable, regulatory and legal requirements been identified by the PP in the section E.1 of the PoA DD. | OK | OK |
| E.4.1.4. Does the PoA-DD identify the most likely baseline scenario in absence of the project | CDM-PoA-DD/ | As per the proposed PoA there are most likely baseline scenario are identified in accordance with the applied " Tool for the demonstration | OK | OK |

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| activity? | /ACM0001/ | <p>and assessment of additionality” I: Alternatives for the disposal/treatment of the waste in the absence of the project activity, i.e. the scenario relevant for estimating baseline methane emissions, to be analysed should include, inter alia:</p> <ul style="list-style-type: none"> ii) LFG1: The project activity (i.e. capture of landfill gas and its flaring and/or its use) undertaken without being registered as a CDM project activity; iii) LFG2: Atmospheric release of the landfill gas or partial capture of landfill gas and destruction to comply with regulations or contractual requirements, or to address safety and odour concerns. | | |
| <p>E.4.1.5. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?</p> | /ACM0001/ /CDM-PoA-DD/ /ESKOM/ | <p>Proposed PoA is a voluntary action by the project proponent and not mandated by any law and legal regulation by the host country to implement this type of project in the region. Moreover, validation team has done a web search and conducted onsite audit and interview with the local stakeholder to verify the same.</p> <p>Nevertheless, applied methodology itself provided with a clear cut instruction on the selection of the baseline scenario and found to be appropriate by the validation team.</p> | OK | OK |
| <p>E.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of a typical CDM-CPA, included in a registered PoA (assessment and demonstration of additionality):</p> | | | | |
| <p>E.5.1. Are the key criteria and data for assessing additionality of a CDM-CPA that is to be included into the PoA clearly and unambiguously stated?</p> | /CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ | <p>As per section A.4.3 of PoA-DD, the demonstration of additionality is done at CPA level which is in line with the § 73 of EB 47 and hence acceptable. Moreover, the process of additionality demonstration at CPA level is sufficiently provided under section E.5.1 and E.5.2 in accordance with the applied methodology and tools referred therein.</p> | OK | OK |
| <p>E.5.2. <i>Key criteria and data for assessing additionality of a CDM-CPA</i></p> | | | | |
| <p>E.5.2.1. Are the key criteria and data for assessing additionality of a CPA that is to be included into the PoA based on the additionality assessment in section E.5.1 of the PoA-DD?</p> | / CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/ | <p>As per section A.4.3 of PoA-DD, the demonstration of additionality is done at CPA level which is in line with the § 73 of EB 47 and hence acceptable. Moreover, the process of additionality demonstration at CPA level is sufficiently provided under section E.5.1 and E.5.2 are in accordance with the applied methodology and tools referred therein.</p> | OK | OK |

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| <p>E.5.2.2. Is the choice of the criteria justified, based on the analysis in section E.5.1 of the PoA-DD?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> |
| <p>E.5.2.3. Does it become evident how these criteria would be applied to assess the additionality of a typical CPA at the time of inclusion?</p> | <p>CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Yes, it is evident and transparent in the PoA –DD that how additionality of a typical CPA would be demonstrated at the time of its inclusion. Moreover, please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> |
| <p>E.5.2.4. Is this information incorporated into the specific CDM-CPA-DD (“real case”)?</p> | <p>/CDM-PoA-DD/</p> | <p>Yes</p> | <p>OK</p> | <p>OK</p> |
| <p>E.5.2.5. If the starting date of the programme activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the programme activity?</p> | <p>/CDM-PoA-DD/</p> | <p>The starting date of the programme activity is 01/05/2012 which is after the date of GSC^{/GSC/} 22/11/2011 hence this particular checklist question is not applicable.</p> | <p>NA</p> | <p>NA</p> |
| <p>E.5.2.6. Is a complete list of barriers developed that prevents the project activity to occur?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> |
| <p>E.5.2.7. Does this list include at least one of the following barriers?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> |
| <p>E.5.2.8. Does the discussion sufficiently take into account relevant national and/or sectoral policies?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> |

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| <p>E.5.2.9. Is transparent and documented evidence provided on the existence and significance of these barriers?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> | | | | | | |
| <p>E.5.2.10. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?</p> | <p>/CDM-PoA-DD/ /ACM0001/ /Tool/ /ADD/ /§73EB47/</p> | <p>Please refer section E.5.1 and E.5.2 above.</p> | <p>OK</p> | <p>OK</p> | | | | | | |
| <p>E.6. Estimation of Emission reductions of a CPA</p> | | | | | | | | | | |
| <p>E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA</p> | | | | | | | | | | |
| <p>E.6.1.1. Is it explained how the procedures provided in the methodology are applied?</p> | <p>/CDM-PoA-DD/ /ACM0001/</p> | <p>Yes, the applicability of the procedures provided in the methodology has been clearly indicated in the PoA-DD.</p> | <p>OK</p> | <p>OK</p> | | | | | | |
| <p>E.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?</p> | <p>/CDM-PoA-DD/ /ACM0001/</p> | <p>Yes, the selected option of monitoring methodology is in accordance with the requirements of applied methodology. However the tool referred in E.6.2 of PoA-DD is 'X' and not appropriate.</p> | <p>CL-8</p> | <p>OK</p> | | | | | | |
| <p>Determination of Project Emission (Comment on any line answered "No")</p> | | | | | | | | | | |
| <p>E.6.1.3. Component 1: Emissions from decomposition of waste at the landfill site</p> | <p>/CDM-PoA-DD/ /ACM0001/</p> | <p>NA</p> <table border="1" data-bbox="1032 949 1839 1045"> <tr> <td>Project emission checklist</td> <td>Yes / No /NA</td> </tr> <tr> <td>Component discussed in the PoA-DD?</td> <td>Yes</td> </tr> <tr> <td>Formulae correctly applied?</td> <td>Yes</td> </tr> </table> | Project emission checklist | Yes / No /NA | Component discussed in the PoA-DD? | Yes | Formulae correctly applied? | Yes | <p>OK</p> | <p>OK</p> |
| Project emission checklist | Yes / No /NA | | | | | | | | | |
| Component discussed in the PoA-DD? | Yes | | | | | | | | | |
| Formulae correctly applied? | Yes | | | | | | | | | |
| <p>E.6.1.4. Component 2: Emissions from the consumption of electricity.</p> | <p>/CDM-PoA-DD/ /ACM0001/</p> | <p>NA</p> <table border="1" data-bbox="1032 1109 1839 1204"> <tr> <td>Project emission checklist</td> <td>Yes / No /NA</td> </tr> <tr> <td>Component discussed in the PoA-DD?</td> <td>Yes</td> </tr> <tr> <td>Formulae correctly applied?</td> <td>Yes</td> </tr> </table> | Project emission checklist | Yes / No /NA | Component discussed in the PoA-DD? | Yes | Formulae correctly applied? | Yes | <p>OK</p> | <p>OK</p> |
| Project emission checklist | Yes / No /NA | | | | | | | | | |
| Component discussed in the PoA-DD? | Yes | | | | | | | | | |
| Formulae correctly applied? | Yes | | | | | | | | | |
| <p>E.6.1.5. Component 3: Emissions thermal energy generation</p> | <p>/CDM-PoA-DD/ /ACM0001/</p> | <p>NA</p> <table border="1" data-bbox="1032 1236 1839 1337"> <tr> <td>Project emission checklist</td> <td>Yes / No /NA</td> </tr> <tr> <td>Component discussed in the PoA-DD?</td> <td>Yes</td> </tr> <tr> <td>Formulae correctly applied?</td> <td>Yes</td> </tr> </table> | Project emission checklist | Yes / No /NA | Component discussed in the PoA-DD? | Yes | Formulae correctly applied? | Yes | <p>OK</p> | <p>OK</p> |
| Project emission checklist | Yes / No /NA | | | | | | | | | |
| Component discussed in the PoA-DD? | Yes | | | | | | | | | |
| Formulae correctly applied? | Yes | | | | | | | | | |
| <p>E.6.1.6. Component 4: On-site fossil fuel</p> | <p>/CDM-PoA-DD/</p> | <p>NA</p> | <p>OK</p> | <p>OK</p> | | | | | | |

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| consumption due to the project activity other than for electricity generation | /ACM0001/ | Project emission checklist | Yes / No /NA | | |
| | | Component discussed in the PoA-DD? | Yes | | |
| | | Formulae correctly applied? | Yes | | |
| E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a CDM-CPA: | | | | | |
| E.6.2.1. Are the formulae required for the determination of emission reductions correctly presented, enabling a complete identification of parameters to be used and / or monitored? | /CDM-PoA-DD/ /ACM0001/ | Yes, the formulae required for the determination of emission reductions are correctly presented in the PoA-DD, enabling a complete identification of parameters to be used and / or monitored. | | OK | OK |
| E.6.2.2. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a CDM-CPA, completely presented? | /CDM-PoA-DD/ /ACM0001/ | All equation/ fixed parameter values are relevant. | | OK | OK |
| E.6.3. Data and parameters that are to be reported in CDM-CPA-DD form | | | | | |
| E.6.3.1. Is the list of parameters presented in chapter E.6.3 considered to be complete with regard to the requirements of the applied methodology? | /CDM-PoA-DD/ /ACM0001/ | List of parameter presented in the PoA-DD is complete and appropriate; under section E.6.3. | | OK | OK |
| E.7. Application of the monitoring methodology and description of the monitoring plan | | | | | |
| E.7.1. Data and parameters to be monitored by each CDM-CPA | | | | | |
| E.7.1.1. Is the list of parameters presented in chapter E.7.1 considered to be complete with regard to the requirements of the applied methodology? | /CDM-PoA-DD/ /ACM0001/ | Section E.7.1 of the webhosted PoA-DD has been provided with a complete and required monitoring parameter in accordance with the applied methodology. | | OK | OK |
| E.7.2. Description of the monitoring plan for a CDM-CPA | | | | | |
| E.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation? | /CDM-PoA-DD/ | Monitoring plan provided under section E.7.2 of the webhosted PoA-DD has not been clearly provided with the operational and management structure in a transparent way along with procedure and hierarchy for flow of information in the organisation. Further the emergency procedures for breakdown are not found to be appropriate. However please refer section A.4.4.1 CAR 7 (2) and section A.4.4.6 above | | Depends on closure of CAR 7 and CAR 8 | OK |
| E.7.2.2. Are responsibilities and institutional | /CDM-PoA- | Please refer section E.7.2.1 above. | | Depends | OK |

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| arrangements for data collection and archiving clearly provided? | DD/ | | on closure of CAR 7 and CAR 8 | |
| E.7.2.3. Does the monitoring plan provide current good monitoring practice? | /CDM-PoA-DD/ | Yes, monitoring plan provide a current good practice for this type of project (Wind Energy). However please refer section E.7.2 above. | Depends on closure of CAR 7 and CAR 8 | OK |
| E.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions? | /CDM-PoA-DD/ | NA | OK | OK |
| E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies) | | | | |
| E.8.1.1. Is there any indication of a date when the baseline was determined? | /PoA-DD/ /PoA-DD-F/ | Yes, a date on which baseline was determined is provided in the PoA-DD under section E.8 as 19/11/2011, however date format is not a standard format as required by UNFCCC, i.e. DD/MM/YYYY. Please refer section A.1.2 of this report. | CAR 11 | OK |
| E.8.1.2. Has dd/mm/yyyy format been used to indicate the date? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.1.2 of this report. | Depends on closure of CAR 11 | OK |
| E.8.1.3. Is this consistent with the time line of the PoA-DD history? | /PoA-DD/ /PoA-DD-F/ | Yes. | OK | OK |
| E.8.1.4. Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation? | /PoA-DD/ /PoA-DD-F/ | Yes the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology is consistent with the actual situation. | OK | OK |
| E.8.1.5. Is information provided whether this person / entity are also considered a project participant? | /PoA-DD/ /PoA-DD-F/ | No, the information provided in the PoA-DD doesn't clearly state whether the person / entity responsible for baseline study are also considered a project participant. | CAR 12 | OK |
| F. ANNEXES 1 – 4 | | | | |

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| F.1. Annex 1: Contact Information | | | | | |
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| F.1.1. | Is the information provided consistent with the one given under section A.3? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.3.1 of this report. Pending closure of CAR 4. | Depends on closure of CAR 4 | OK |
| F.1.2. | Is the information on all private participants and directly involved Parties presented? | /PoA-DD/ /PoA-DD-F/ | Please refer section A.3.1 of this report. Pending closure of CAR 4. | Depends on closure of CAR 4 | OK |
| F.2. Annex 2: Information regarding public funding | | | | | |
| F.2.1. | Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants? | /PoA-DD/ /PoA-DD-F/ | Please refer A.4.5.1 above. Pending closure of CL 5 | Depends on closure of CL 5 | OK |
| F.2.2. | If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA? | /PoA-DD/ /PoA-DD-F/ | Please refer A.4.5.1 above. Pending closure of CL 5 | Depends on closure of CL 5 | OK |
| F.3. Annex 3: Baseline information | | | | | |
| F.3.1. | If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PoA-DD? | PoA-DD/ /PoA-DD-F/ | Additional background information regarding baseline emission calculation provided under Annex 3 of the PoA-DD is consistent with each other. | OK | OK |
| F.3.2. | Is the data provided verifiable? Has sufficient evidence been provided to the validation team? | PoA-DD/ /PoA-DD-F/ | Data provided is sufficiently evidenced/referenced and hence, satisfactory. | OK | OK |
| F.3.3. | Does the additional information substantiate / support statements given in other sections of the PoA-DD? | /PoA-DD/ /PoA-DD-F/ | Yes. | OK | OK |
| F.4. Annex 4: Monitoring information | | | | | |
| F.4.1. | If additional background information on monitoring is provided: Is this information consistent with data presented in other | PoA-DD/ /PoA-DD-F/ | No, additional background information on monitoring is not provided in Annex-4. | OK | OK |

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| sections of the PoA-DD? | | | | |
| F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team? | PoA-DD/ /PoA-DD-F/ | NA | NA | NA |
| F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PoA-DD? | PoA-DD/ /PoA-DD-F/ | NA | NA | NA |

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Table 2 Resolution of Clarification and Corrective Action Requests

| Requests by validation team | Ref. to table 1 | Summary of programme owner response | Validation team Conclusion |
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| CLARIFICATION REQUESTS | | | |
| 5 CL1: Section A.3 describes few companies which contradicts with the statement regarding general operating and implementing framework and role of the CME | 6 A.2.1 | 7 Clarified. Section has been cleaned up. References to consultant have been moved to E.8. 8 New response (26/06/2012): Please find VD3_06 MOC Modalities of Communication (signed).pdf in dropbox | 9 Section A.3 of the revised PoA-DD, states: "ENER-G Systems (Pty) Ltd is a private company registered in South Africa. Ener-G Systems through its subsidiaries finances, designs, builds, and operates landfill gas to energy projects in South Africa. To this end ENER-G Systems will act as the coordinating and managing entity (CME) for the PoA and as such will be the entity who communicates with the CDM Executive Board." ENER-G Systems (Pty) Ltd's Board Decision on ENER-G Systems (Pty) Ltd as the CME for the PoA/36/ is also provided as an evidence. Modalities of Communication (MoC) dated 25/06/2012 supporting the same has also been provided for validation. Revised MoC was provided for editorial changes dated 12/11/2012 and subsequently 28/11/2012. CL closed |

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| <p>10 CL 2:</p> <p>The PoA claims that the PoA involves the transfer of technology for efficient capture and utilisation of the LFG which has not been substantiated and or explained.</p> | <p>11 A.2.2</p> | <p>12 Clarified: Paragraph now reads “<i>The proposed PoA involves the transfer of technology and know-how from the UK and/ or other European countries on the efficient capture and utilisation of the LFG through importing mature technologies such as flares, generators, design philosophies and experience from the UK into South Africa. In addition, there will also be knowledge transfer and capacity building related to implementation of the proposed PoA through the design, build and operational phases of the projects as the technology providers provide onsite training and ongoing support to the local project developers and operators.</i>”</p> <hr/> <p>13 New response (26/06/2012): Response. Please see “VD3_04 dox on import of technology” folder provided to the validator. This shows the type of equipment the PP has imported for other LFG utilization projects and intends to import for CPAs under this PoA. Please also refer to “VD3_05 On sites training documents & info” folder provided to the validator. This shows the training material the PP is using and will use under the PoA and its CPAs.</p> | <p>14 In response to the clarification request PP states in section A.2 of the revised PoA-DD that transfer of technology and know-how occurs on the account of:</p> <ul style="list-style-type: none"> • Importing of mature technologies such as flares, generators, design philosophies and experience from the UK into South Africa.” • Capacity building related to implementation of the proposed PoA through the design, build and operational phases of the projects through onsite training and continuous support to local project developer and operator. <p>The same has been supported with providing evidence in the form of invoice receipts for the import of technology and site training documents by the CME ENER-G Systems (Pty) Ltd.</p> <p>CL closed</p> |
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| <p>15 CL 3:</p> <p>Section A.4.2.1 of the webhosted PoA-DD does not describe technology or measures to be employed by the CPA. Moreover, type and category of the proposed PoA is also not mentioned under this section</p> | <p>16 A.4.2.1</p> | <p>17 Clarified: the § now reads: <i>“The technology installed under the project activity consists of: A network or grid of vertical and/or horizontal gas extraction wells/ drains made from HDPE slotted pipes/ drains; Collection piping system consisting of HDPE pipes/ drains; Gas pre-treatment system consisting of condensate Knock out pots, demisted elements and filters; Enclosed high temperature environmental flare; Internal spark ignition electricity generation unit*; Step-uptransformers and grid connection*.</i></p> <p><i>*) optional – dependent on size, location and state of the respective landfill.</i></p> <p><i>The general design of the installation for capturing and utilisation of the landfill gas is presented on the scheme below. The network of gas collection wells (1) are installed in the waste mass to facilitate the extraction of the landfill gas from the waste mass. These series of wells are connected to gas collection pipes (2) that covey the gas from the wells to the equipment compound and in turn the flare. At the equipment compound the gas is treated (3) to take out any moisture or particulate matter in the gas stream before being put through the flare. The flare (4) combusts the gas in an enclosed, thermally insulated stack at high temperatures to ensuring full thermal oxidation of the landfill gas. If the site is capable of supporting and exporting electricity the gas will be diverted from the flare to the generation unit were an internal spark ignition engine with use the gas as a fuel source and drive a generator (5). The low voltage electricity produced can then be put through a step up transformer (6) and the electricity exported into the local grid.”</i></p> <p><i>the numbers refer to the figure 2 in the PoA-DD.</i></p> | <p>18 Section A.4.2.1 of the revised PoA-DD clearly states the technology to be employed by the CPA under the PoA. The type of project is also indicated as it states that the PoA and all its CPA fall under sectoral scopes 13 i.e., Waste handling and disposal.</p> <p>CL closed.</p> |
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| | | <p><i>Type and category relate to Appendix B of the Simplified Modalities and Procedures for Small-Scale clean development mechanism project activities.</i></p> <p><i>Added to the paragraph: "This PoA and it's CPAs fall under sectoral scope 13 Waste handling and disposal."</i></p> | |
| <p>CL 4:</p> <p>The PoA-DD in section A.4.4.1 although provides the provision to avoid double counting, however evidences for the same is required to be submitted to the validation team for further assessment.</p> | <p>19 A.4.4.3</p> | <p>20 Response: Please see SCHEDULE 3: Inclusion Criteria of the inclusion agreement between the CME and the CPA01 owner (VD2_06 Signed Inclusion Agreement.pdf). Please also see the validation documents VD2_02 through VD2_05 showing proof for CPA01 that CPA01 is not registered yet under CDM and that hence no double counting occurs.</p> | <p>21 The PP has submitted the following evidences to substantiate that the proposed CPA01 under the PoA is not a registered project activity or a part of a part of an already registered PoA:</p> <ul style="list-style-type: none"> • List of registered CDM PoA with CDM Executive Board¹ /32/ • List of registered CDM landfill projects in South Africa.² /33/ • Search result for Shongweni Landfill on UNFCCC website.³ /34/ • VD2_06: CDM Project inclusion and CER sale agreement between ENER-G Systems (Pty) Ltd., and ENER-G Systems Natural Power (Pty) Ltd., signed on 26/04/2012. /24/ <p>Validation team confirms the output of search results from the CDM website /B19/ on 23/04/2012.</p> <p>CL closed.</p> |

¹ <http://cdm.unfccc.int/ProgrammeOfActivities/registered.html>

² <http://cdm.unfccc.int/Projects/projsearch.html>

³ <http://cdm.unfccc.int/search?q=Shongweni+Landfill>

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| <p>CL 5</p> <p>Section A.4.5 of the PoA-DD mentions that there is no public funding involved in this programme, however, the evidence that no ODA has been diverted in this project activity is required to be submitted by PP to the DOE</p> | <p>22 A.4.5.1</p> | <p>23 PP's response: Added the following sentence to section A.4.5.1 <i>"On a CPA level, as required by eligibility criterion 14, the CPA confirms no public funding is diverted to the CPA."</i></p> <p>In the specific CPA-DD the sentence has been changed to: <i>"The CPA01 has not received and will not be seeking public funding from Annex 1 countries."</i></p> <p>In the CPA-DD generic the sentence has been changed to: <i>"The CPA [CPA number] [has/has not] received and [will/will not be] seeking public funding from Annex 1 countries. [In case the CPA uses any public funding, the information regarding the public funding will be provided here and also in the Annex 2]"</i></p> <hr/> <p>24 New response (26/06/2012): Please find the signed letter VD3_02 CME declaration of non ODA (signed).pdf in the dropbox folder, as supporting evidence that no ODA has been diverted.</p> | <p>25 The section A.4.5 of the PoA-DD clearly states that the PoA does not obtain public funding. Also an eligibility criterion has been developed for the confirmation from the CPA of no diversion of official development assistance takes place in the PoA.</p> <p>CME has provided a declaration stating that no ODA involvement in the CDM PoA.</p> <p>Validation team confirms that the declaration has been provided confirming that no ODA is involved in the PoA.</p> <p>In addition financial statements of the CME for past three years have been provided to DOE to confirm the same.</p> <p>CL closed</p> |
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| <p>CL 6 The choice for environmental analysis at CPA level is stated but not justified and explained in Section C1. Of PoA-DD.</p> | <p>26 C.1.2</p> | <p>27 Response: Added to the section C.1.2 in the PoA-DD: <i>“The EIA is undertaken at the CPA level as possible impacts of a project activity are highly site specific.”</i></p> | <p>28 In section C.1 of revised PoA-DD, the choice for conducting environmental analysis is stated as:</p> <ul style="list-style-type: none"> • The reason for undertaking the environmental analysis at CPA level is due the fact that it is only possible to identify the impacts of a potential project at the CPA level once the project site is known and better understood in terms of it scale and the potential impacts on the receiving environment. • The EIA is undertaken at the CPA level, as possible impacts of a project activity are highly site specific. <p>The same is found to be satisfactory by the validation team. Environmental analysis for the PoA would be done at CPA level.</p> <p>CL closed.</p> |
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| <p>CL7 As per the requirements under section C.3, PP has not explained the host Party laws/regulations, that an EIA is required for a typical CPA, included in the PoA irrespective of the choice to conduct an EIA at CPA or PoA level. However PP has described the anticipated law rather than describing the applicable law.</p> | <p>29 C.2.1</p> | <p>30 Section has been changed. Now reads: “<i>If required by applicable law[1] at the time of inclusions, CPAs will undertake an environmental assessment (EIA).</i>” With footnote [1] reading “<i>At the time of writing, a basic environmental assessment is s required for a typical CPA included under the PoA as per Environmental Impact Assessment Regulations (GN 385, 21 April 2006) of the National Environmental Management Act (NEMA) No 107 of 1998. However this act is currently being redrafted and it is expected that – when approved – landfill gas utilisation projects will be exempted from performing an EIA</i>”</p> | <p>31 In section C.1 of revised PoA-DD, the choice for conducting environmental analysis is stated as:</p> <ul style="list-style-type: none"> • The reason for undertaking the environmental analysis at CPA level is due the fact that it is only possible to identify the impacts of a potential project at the CPA level once the project site is known and better understood in terms of it scale and the potential impacts on the receiving environment. • The EIA is undertaken at the CPA level, as possible impacts of a project activity are highly site specific. <p>Also as per the requirements under section C.3, PP has explained the host Party laws/regulations with respect to EIA.</p> <p>The same is found to be satisfactory by the validation team.</p> <p>CL closed.</p> |
| <p>32 CL 8 The selected option of monitoring methodology is in accordance with the requirements of applied methodology. However the tool referred in E.6.2 of PoA-DD is ‘X’ and not appropriate.</p> | <p>33 E.6.1.2</p> | <p>34 Corrected: XX replaced by the number of the formula (16).</p> | <p>35 Section E.6.2 of the revised PoA-DD states:</p> <ul style="list-style-type: none"> • According to the methodology ACM0001 (Version 11.0) in the tool x will refer to the year since the landfill started receiving wastes [x runs from the first year of landfill operation (x=1) to the year for which emissions are calculated (x=y)]. • Reference to the equation has been changed from XX to 16. <p>CL closed.</p> |

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| CORRECTIVE ACTION REQUESTS | | | |
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| <p>CAR 1 Letter of Approval from the host country DNA has not been submitted by the PP</p> | <p>36 A.1.1</p> | <p>37 Request for LoA in progress</p> | <p>39 The Programme of Activities (PoA) has received Letter of Approval (LoA), dated 29/05/2012 from the DNA of South Africa i.e., Department of Energy, republic of South Africa. Host country DNA confirms that the PoA contributes to sustainable development. Letter of Approval from the Annex 1 party has also been provided to validation team. Validation team confirms the veracity of these letter of approvals. CAR closed.</p> |
| <p>CAR2 The description in section A.3 indicates as if the PoA is voluntary action But CME has not demonstrated in PoA-DD or otherwise that the proposed PoA is a voluntary action by the coordinating/managing entity;</p> | <p>A.2.3</p> | <p>40 Please find VD2_10 Letter to Carbon Check.pdf – a written confirmation from CME that the PoA is a voluntary action.</p> | <p>41 Section A.2 of revised PoA-DD clearly states “The implementation of this PoA is a voluntary action by the coordinating entity. There are no mandatory requirements in South Africa stipulating capturing and utilisation of the landfill gas, and the PoA requires interested parties to take voluntary action to participate in the programme activities.” CME has provided a letter dated 03/05/2012 stating that the PoA and underlying potential projects are being developed on voluntary basis and there is no current legislative obligation on ENER-G Systems to undertake these activities. /25/ CAR closed.</p> |

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| <p>CAR 3 Description of the technology measure to be applied under the proposed PoA is not sufficient and transparent under section A.4.2.1 of the PoA-DD. Further, The technology does not provide and describe any technology other than few components and the system. The explanation that how the PoA will reduce the green house emission and also description how the project activity is environmentally safe is not transparently described</p> | <p>42 A.2.4</p> | <p>43 The following has been added to §A.2.4: Reduce Greenhouse Gas (GHG) emissions and adverse environmental effects of landfill gas</p> <p><i>“The programme will reduce greenhouse gas (GHG) emissions by avoiding emissions:</i></p> <ul style="list-style-type: none"> <i>• of landfill gas (LFG) to the atmosphere; and/or</i> <i>• through the substitution of grid electricity use.</i> <p><i>LFG consists mainly of the greenhouse gases methane (CH₄), carbon dioxide (CO₂) and nitrogen (N₂). By establishing a system for the capture and utilization of LFG the LFG is extracted and burned in a flare or combusted as fuel in an energy plant. The chemical process: CH₄ + O₂ = CO₂ + 2H₂O, in which the CH₄ is transformed to CO₂. Since the CH₄ contribute 21 times more to the greenhouse effect than CO₂ (and in this case the CO₂ is even neutral), destroying it has a considerable positive impact on the global environment.</i></p> <p><i>The programme is environmentally safe as the technology operates at a high temperature and has a retention time of at least 0.3 seconds, which is sufficient time to fully oxidise the Methane gas and reduce it to water and carbon dioxide. Landfill gas extraction projects are widely accepted and have been in operation globally for many years and provide environmental benefit by reducing Green House gases and reducing odours for those living in close proximity to the sites.”</i></p> | <p>44 Section A.4.2.1 of the revised PoA-DD clearly states the technology to be employed by the CPA under the PoA.</p> <p>Under section A.2 of the revised PoA-DD it is stated that the technology to be employed is environmentally safe and sound.</p> <p>CAR closed.</p> |
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| <p>CAR 4 The information about the project participants being registered in relation to the PoA is not provided in the section A.3 of PoA –DD. Section A.3 also not provided a clear description whether the parties involved is private or public entity and the project consultant described under section A.3 is ambiguous.</p> | <p>45 A.3.1</p> | <p>46 Added a footnote to Do-inc. business B.V. which reads: <i>“B.V. stands for BeslotenVennootschap which is a legal private entity form under Dutch Law.”</i></p> <p>Partly moved text to section E.8 which now reads <i>“The final draft of this baseline section has been completed on 19.11.2011 by Mr. Geert Eenhoorn, Mr. Kim van der Leeuw, Ms. Katrin Heer and Mr. Janusz Mizerny.</i></p> <p><i>The baseline and monitoring methodology has been prepared by Do-inc business B.V. Do-inc. offers consultancy for the development and documentation of the PoA project. Do-inc will furthermore provide guidance to the monitoring plan and the documentation and presentation of the monitoring results to the validator and the UNFCCC.”</i></p> <hr/> <p>47 New response (26/06/2012): Response: we’ve added the sentence “Do-inc is project participant of this PoA.” to section E.8.</p> | <p>48 In Section A.3 of the revised PoA-DD it is stated that both ENER-G Systems (Pty) Ltd. And Do-inc. business B.V., are private entities and are project participants as well.</p> <p>The same is also mentioned in the Annex 1 of the PoA-DD.</p> <p>Do-inc. business B.V., is also the CDM consultant for the project activity. Also in section E.8 of the PoA-DD, it is stated clearly that the entity or person responsible for application of baseline or monitoring methodology is also a project participant, i.e. Do-inc. business B.V.</p> <p>CAR closed</p> |
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| <p>CAR 5 It is not evident from section A.3 or otherwise PoA-DD that CME of the PoA is the entity, which will communicate with the EB.</p> | <p>49 A.3.4</p> | <p>50 Section A.3 has been changed and now reads: “(...). To this end ENER-G Systems will act as the coordinating and managing entity (CME)[3] for the PoA and as such will be the entity who with the CDM Executive Board.” Foot note [3] reads “The coordinating and managing entity is a project participant authorized by the host country DNA involved and identified in the modalities of communication as the entity which communicates with the Executive Board, including on matters relating to the distribution of CERs.”</p> <hr/> <p>51 New response (26/06/2012): Response: Please find VD3_06 MOC Modalities of Communication (signed).pdf in dropbox</p> | <p>Section A.3 of the revised PoA-DD, states: "ENER-G Systems (Pty) Ltd is a private company registered in South Africa. Ener-G Systems through its subsidiaries finances, designs, builds, and operates landfill gas to energy projects in South Africa. To this end ENER-G Systems will act as the coordinating and managing entity (CME) for the PoA and as such will be the entity who communicates with the CDM Executive Board." Modalities of Communication (MoC) stating the same has also been provided for validation. /11/ CAR closed</p> |
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| <p>CAR 6 In section A.4.2.2 of the CDM-PoA-DD, eligibility criteria for the inclusion of CPA into the PoA, does not provide in accordance with the latest requirements stipulated as per §14 Annex 3 of EB 65.</p> | <p>52 A.4.2.10</p> | <p>53 Criteria have been re-aligned and adapted where necessary to match the eligibility criteria for inclusion as specified in § 14 Annex 3 of EB 65. Please see VD2_07 120402_List of eligibility criteria.doc. The memo also shows the numbering of the criteria as used in version 1 of the PoA-DD and version 1 of the CPA-DD.</p> <hr/> <p>54 New response (26/06/2012): The criteria have been updated. See VD3_01 120621 updated List of eligibility criteria.docx. This resulted in an updated Inclusion check list signed by CME and CPA owner: VD3_09 Eligibility check sheet Shongweni_signed.pdf based on updated Eligibility check procedure (WI-CME-GEN-18 Rev 02 Eligibility Check Procedure) and related template (WI-CME-GEN-19 Rev 02 Eligibility Check Sheet) in the CME manual.</p> | <p>55 In section A.4.2.2 of the PoA-DD the eligibility criterion have been developed against the requirements as mentioned under §14, EB 65 Annex 3. The eligibility criteria are verifiable and sufficiently objective as required by §15 and 16 of EB65 Annex 3. Specific verifiable documents to be submitted for the eligibility criteria are also stated clearly.</p> <p>CAR closed</p> |
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| <p>56 CAR 7 Section A.4.4.1 of the webhosted PoA –DD is not in line with the requirements laid down under Annex 3 of EB 65 § 17 and CDM-PoA-DD Form version 01. This section lacks in the following:</p> <ol style="list-style-type: none"> 1. Record keeping system and documentation control procedure for each CPA. 2. Clear definition of roles and responsibilities of personnel involved in the process of inclusion of the CPA including the provision to review their competencies. 3. Measures for continuous improvement of PoA management system. Records of arrangements for training and capacity development for personnel. | <p>57 A.4.4.1</p> | <p>58 See VD2_08 CME manual. Specifically: WI-CME-GEN-04 on document control; WI-CME-GEN-05 on record keeping system; WI-CME-GEN-06 on roles & responsibilities; WI-CME-GEN-54 on Continuous Improvement of PoA Management System; WI-CME-GEN-45 on training.</p> | <p>59 Section A.4.4.1 of the revised PoA-DD includes the requirement as per §17 of Annex 3, EB 65.</p> <p>Specific Work Instructions (WI) have been developed as a part of CME operations manual /28-1/ to address the requirements in line with requirement as per §17 of Annex 3, EB 65.</p> <p>The following WI's deal with the issues identified:</p> <ul style="list-style-type: none"> • WI-CME-GEN-04: Document control; /28-1/ • WI-CME-GEN-05: Record keeping system; /28-1/ • WI-CME-GEN-06: Roles & responsibilities; /28-1/ • WI-CME-GEN-54: Continuous Improvement of PoA Management System; /28-17/ • WI-CME-GEN-45: Training Procedure. /28-11/ <p>CAR closed.</p> |
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| <p>60 CAR 8 Monitoring plan of the PoA is not adequately and transparently described as per the CDM-PoA-DD Form version 01. Section is ambiguous about the responsible entity for the monitoring. It is ambiguous for the reason like one of the monitoring parameter indicates that data related to Heat generators will be recorded But heat generation has not been proposed in the PoA. Also the work book indicated in section A.4.4.1 has not been provided for validation.</p> | <p>61 A.4.4.6</p> | <p>62 Responsibilities have been defined in the Manual. See VD2_08 CME manual and especially WI-CME-GEN-55 Rev 00 (the workbook).</p> | <p>63 In section A.4.4.2 of revised PoA-DD provides the following:</p> <ul style="list-style-type: none"> Monitoring plan to be implemented by CME along with a diagram clearly indicating the flow of information, recording and archiving of the same. Reference to data from heat generators has been removed, as the same is not considered as a component of PoA. WI-CME-GEN-55: is the workbook format that would be used to capture data in accordance with the applied methodology and generate monthly reports of emission reductions. /28-18/ <p>CAR closed.</p> |
| <p>64 CAR 9 Justification of choice of conducting stakeholder comments at CPA level under section D.1 of the PoA-DD is not provided.</p> | <p>65 D.1.2</p> | <p>66 Corrected. Text now reads <i>“The reason for undertaking the environmental analysis at CPA level is due the fact that it is only possible to identify the impacts of a potential project at the CPA level once the project site is known and better understood in terms of it scale and the potential impacts on the receiving environment. South Africa is a large country and it will only be possible to identify the interested and affected parties at the CPA level once the project site is known. This will enable the developer to target the public consultation process at those who will have an interest in the project based on the projects and their locations.</i></p> <p><i>A typical CPA under the PoA, has highly site specific impacts. Therefore, stakeholder comments are invited at the CPA level.”</i></p> | <p>67 In section D.1 of the revised PoA-DD clearly provides justification for conducting stakeholder consultation at CPA level.</p> <p>It states <i>“South Africa is a large country and it will only be possible to identify the interested and affected parties at the CPA level once the project site is known. This will enable the developer to target the public consultation process at those who will have an interest in the project based on the projects and their locations.”</i></p> <p>The same is found to be satisfactory by the validation team.</p> <p>CAR closed.</p> |

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| <p>68 CAR 10 The proposed PoA fulfils all applicability criteria of applied methodology and tools referred therein. However it does not evaluate whether the LFG in baseline scenario fulfils the partial or total atmospheric release of the gas criteria or not.</p> | <p>69 E.2.1.3</p> | <p>70 Corrected. The paragraph now reads: “<i>The methodology ACM0001 Consolidated baseline and monitoring methodology for landfill gas projects activities (Version 11.0) is applicable because the project activities involve the extraction of landfill gas which would otherwise have been partially or fully released into the atmosphere. The project activities fulfil the following criteria:</i>”</p> | <p>71 In the section E.2 of the revised PoA-DD states that in absence of the project activity the LFG in baseline would be partially or fully vented in the atmosphere. Hence it justifies the applicability of the PoA against the requirements of the methodology applied. CAR closed.</p> |
| <p>72 CAR11 The date on which baseline was determined is provided in the PoA-DD under section E.8 as 19/11/2011, however date format is not a standard format as required by UNFCCC, i.e. DD/MM/YYYY.</p> | <p>73 E.8.1.1</p> | <p>74 Corrected from 19.11.2011 to 19/11/2011, which is the standard format required by UNFCCC</p> | <p>75 In section E.8 of the PoA-DD the date on which baseline was determined is provided as 19/11/2011 which is as per the standard format. CAR closed.</p> |
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| <p>76 CAR 12 The information provided in the PoA-DD doesn't clearly state whether the person / entity responsible for baseline study are also considered a project participant.</p> | <p>77 E.8.1.5</p> | <p>78 Corrected. Text now reads: "<i>The final draft of this baseline section has been completed on 19/11/2011 by Mr. Geert Eenhoorn, Mr. Kim van der Leeuw, Ms. Katrin Heer and Mr. Janusz Mizerny.</i></p> <p><i>The baseline and monitoring methodology has been prepared by Do-inc business B.V. Do-inc. offers consultancy for the development and documentation of the PoA project. Do-inc will furthermore provide guidance to the monitoring plan and the documentation and presentation of the monitoring results to the validator and the UNFCCC.</i></p> <hr/> <p>79 New response (26/06/2012): Response: we've added the sentence "Do-inc is project participant of this PoA." to section E.8.</p> | <p>80 In section E.8 of revised PoA-DD it is clearly stated that the baseline and monitoring methodology has been prepared by Do-inc business B.V. and Do-inc is project participant of this PoA.</p> <p>81 CAR closed</p> |
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Table3: Forward Action Requests

| Forward action request | Reference to Table 2 | Response by project participants Validation Conclusion |
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APPENDIX B

CERTIFICATE OF COMPETENCE



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