

Application of the Oeko-Institut/WWF-US/ EDF methodology for assessing the quality of carbon credits

This document presents results from the application of version 3.0 of a methodology, developed by Oeko-Institut, World Wildlife Fund (WWF-US) and Environmental Defense Fund (EDF), for assessing the quality of carbon credits. The methodology is applied by Oeko-Institut with support by Carbon Limits, Greenhouse Gas Management Institute (GHGMI), INFRAS, Stockholm Environment Institute, and individual carbon market experts. This document evaluates one specific criterion or sub-criterion with respect to a specific carbon crediting program, project type, quantification methodology and/or host country, as specified in the below table. Please note that the CCQI website [Site terms and Privacy Policy](#) apply with respect to any use of the information provided in this document. Further information on the project and the methodology can be found here: www.carboncreditquality.org

Sub-criterion:	1.3.2 Robustness of the quantification methodologies applied to determine emission reductions or removals
Project type:	Industrial biodigesters fed with livestock manure
Quantification methodology:	Gold Standard Revised Consolidated Baseline Methodology for GHG Emission Reductions from Manure Management Systems and Municipal Solid Waste (Version 1 from December 2013)
Assessment based on carbon crediting program documents valid as of:	15 May 2022
Date of final assessment:	31 January 2023
Score:	3

Contact

info@oeko.de
www.oeko.de

Head Office Freiburg

P. O. Box 17 71
 79017 Freiburg

Street address

Merzhauser Straße 173
 79100 Freiburg
 Phone +49 761 45295-0

Office Berlin

Borkumstraße 2
 13189 Berlin
 Phone +49 30 405085-0

Office Darmstadt

Rheinstraße 95
 64295 Darmstadt
 Phone +49 6151 8191-0

Assessment

Relevant scoring methodology provisions

The methodology assesses the robustness of the quantification methodologies applied by the carbon crediting program to determine emission reductions or removals. The assessment of the quantification methodologies considers the degree of conservativeness in the light of the uncertainty of the emission reductions or removals. The assessment is based on the likelihood that the emission reductions or removals are under-estimated, estimated accurately, or over-estimated, as follows (see further details in the methodology):

Assessment outcome	Score
It is very likely (i.e., a probability of more than 90%) that the emission reductions or removals are underestimated, taking into account the uncertainty in quantifying the emission reductions or removals	5
It is likely (i.e., a probability of more than 66%) that the emission reductions or removals are underestimated, taking into account the uncertainty in quantifying the emission reductions or removals	4
OR The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) and uncertainty in the estimates of the emission reductions or removals is low (i.e., up to $\pm 10\%$)	
The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) but there is medium to high uncertainty (i.e., $\pm 10-50\%$) in the estimates of the emission reductions or removals	3
OR It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, but the degree of overestimation is likely to be low (i.e., up to $\pm 10\%$)	
The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) but there is very high uncertainty (i.e., larger than $\pm 50\%$) in the estimates of the emission reductions or removals	2
OR It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, and the degree of overestimation is likely to be medium ($\pm 10-30\%$)	
It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, and the degree of overestimation is likely to be large (i.e., larger than $\pm 30\%$)	1

Information sources considered

1 Assessment of CDM ACM0010 – Version 8.0

Assessment outcome

The quantification methodology is assigned a score of 3.

Justification of assessment

This methodology is primarily based on ACM0010 (Version 7). The CCQI has assessed Version 8 of ACM0001; according to the section “Document information” in Version 8 of ACM0010, however, there is no relevant difference between Version 7 and Version 8.

The Gold Standard methodology is also based on:

- ACM0022 Version 1.0 (Alternative waste treatment processes). ACM0022 applies to project activities that avoid methane emissions from disposing, in the baseline scenario, organic waste in a solid waste disposal site with or without a partial LFG capture system.
- AM0073¹ Version 1.0 (GHG emission reductions through multi-site manure collection and treatment in a central plant). AM0073 includes the elements (i) composting of stabilized sludge produced during the project activity prior to its final disposition, (ii) manure transport or (iii) manure storage.

These elements from ACM0022 and AM0073 are in most parts also covered by ACM0010’s leakage emissions and are thus part of our assessment of ACM0010. We also assume that these emission sources have minor impact on overall emission reductions. Beyond these elements, we did not find any material difference between the Gold Standard’s methodology and ACM0010 (Version 8). The score is therefore the same as derived in the assessment for ACM0010 (Version 8).

¹ In the GS document erroneously called “ACM0073”