Voluntary Carbon Standard

Voluntary Carbon Standard 2007.1

18 November 2008

Voluntary Carbon Standard - Specification for the project-level quantification, monitoring and reporting as well as validation and verification of greenhouse gas emission reductions or removals

VOLUNTARY CARBON STANDARD

Voluntary Carbon Standard 2007.1

Voluntary Carbon Standard - Specification for the project-level quantification, monitoring and reporting as well as validation and verification of greenhouse gas emission reductions or removals.

Contents

| 1 | Defini | finitions | | | | |
|---|--------|--|----|--|--|--|
| 2 | Norm | Normative references | | | | |
| 3 | VCS P | rogram specific issues | 8 | | | |
| | 3.1 | Scope of the VCS Program | 8 | | | |
| | 3.2 | Language | 9 | | | |
| | 3.3 | Forward crediting | 9 | | | |
| | 3.4 | Additional requirements for AFOLU | 9 | | | |
| | 3.5 | Double approval process | 9 | | | |
| | 3.6 | VCS Guidance Documents | 10 | | | |
| 4 | Linkiı | ng to other GHG Programs | 10 | | | |
| 5 | Projec | et level requirements | 10 | | | |
| | 5.1 | Principles | 10 | | | |
| | 5.2 | General requirements | 11 | | | |
| | | 5.2.1 Project start date | 11 | | | |
| | | 5.2.2 Project scope | 12 | | | |
| | | 5.2.3 Project crediting period | 13 | | | |
| | 5.3 | Methodology deviations | 13 | | | |
| | 5.4 | Methodology revisions | 14 | | | |
| | 5.5 | Standards and factors | 14 | | | |
| | 5.6 | ProjectGrouping | 14 | | | |
| | 5.7 | Content of the VCS PD | 14 | | | |
| | 5.8 | Additionality | 16 | | | |
| | 5.9 | Identifying GHG sources, sinks and reservoirs relevant to the project | 17 | | | |
| | 5.10 | Determining the baseline scenario | 17 | | | |
| | 5.11 | Monitoring the GHG project | 17 | | | |
| | 5.12 | Monitoring reports for the GHG project | 17 | | | |
| | 5.13 | Records relating to the project | 18 | | | |
| | 5.14 | Information to validator and verifier | 18 | | | |
| 6 | Metho | dologies | 18 | | | |
| | 6.1 | General requirements | 18 | | | |
| | 6.2 | Identifying GHG sources, sinks and reservoirs relevant to VCS | | | | |
| | | methodologies | 18 | | | |
| | 6.3 | Determine the baseline scenario relevant to VCS methodologies | 19 | | | |
| | | 6.3.1 Identifying GHG sources, sinks and reservoirs for the baseline | | | | |
| | | scenario | 19 | | | |
| | 6.4 | Additionality | 20 | | | |
| | 6.5 | Monitoring, quantification and reporting related to the methodology | 50 | | | |
| | | 6.5.1 Selecting relevant GHG sources, sinks and reservoirs for monitorin | ıg | | | |
| | | related to the methodology | 50 | | | |
| | | 6.5.2 Quantification of GHG emissions and /or removals related to the | 20 | | | |
| | | methodology | 50 | | | |
| | | 6.5.3 Quantification of overall GHG emission reductions and removal | | | | |
| | | enhancements related to the methodology | 21 | | | |
| | | 6.5.4 Managing data quality related to the methodology | 21 | | | |

| 7 | Valida | ation and verification process and requirements | 21 |
|----|--------|---|----|
| | 7.1 | Introduction | |
| | 7.2 | General requirements | |
| | 7.3 | Validation and verification process | |
| | | 7.3.1 General requirement | |
| | | 7.3.2 Competence | |
| | | 7.3.3 Validation and verification reporting | 22 |
| | | 7.3.4 Validation and verification statement | 23 |
| | | 7.3.5 Records of validation and verification | 23 |
| 8 | Reque | est for issuance | 23 |
| 9 | VCSP | Program Accreditation | 23 |
| | 9.1 | Accreditation scope | 23 |
| | 9.2 | Accreditation requirements | 23 |
| 10 | Biblio | ography | 24 |

Version control

Changes to the VCS 2007 will be indicated by 2007.x where x is a running number commencing at '1'. Major updates will be indicated by 200v where v relates to the year of the update. Any update will include all the previous changes.

The current version is the version available at the time of use on the www.v-c-s.org.

The VCS 2007 was released on 19 November 2007.

The VCS 2007.1 was released on 18 November 2008.

Foreword

The Voluntary Carbon Standard Program (the "VCS Program") has been developed to provide a rigorous, trustworthy and innovative global standard and validation and verification program for voluntary greenhouse gas offsets.

Development of the VCS Program would not have been possible without the support and dedication of the VCS Steering Committee who volunteered considerable amounts of time to this work. We would like to thank the following members of the Steering Committee for their hard work and dedication:

- Jan-Willem Bode, Ecofys
- Derik Broekhoff, World Resources Institute
- Mike Burnett, Climate Trust
- Robert Dornau, SGS
- Steve Drummond, CantorCO₂e
- Mitchell Feierstein, Cheyne Capital
- Yoshito Izumi (Observer), Taiheiyo Cement
- Mark Kenber, The Climate Group (co-chair)
- Adam Kirkman, World Business Council for Sustainable Development
- Andrei Marcu, International Emissions Trading Association (co-chair)
- Erin Meezan, Interface
- Ken Newcombe, Goldman Sachs
- Mark Proegler, BP
- Robert Routliffe, Invista
- Richard Samans, World Economic Forum
- Marc Stuart, Ecosecurities
- Einar Telnes, DNV
- Bill Townsend, Blue Source
- Diane Wittenberg, Californian Climate Action Registry

Undoubtedly, the VCS 2007 would not have been developed without the tireless work of Anne-Marie Warris from Lloyds Register Quality Assurance Limited who volunteered her time to write the VCS 2007 based on inputs and guidance from the Steering Committee. We would like to extend special thanks to her for her patience, intelligence and dedication to this project.

We also wish to recognize the kind agreement of the International Organization for Standardization (ISO, www.iso.org) to allow inclusion of critical clauses of ISO 14064-2:2006 and ISO 14064-3:2006 in the VCS documentation to facilitate comprehension.

The VCS 2007.1 has been approved by the VCS Board, the members of which are listed at www.v-c-s.org.

Kind regards,

Mark Kenber Policy Director The Climate Group Chair, VCS Board

A) | Kont

David Antonioli CEO, VCS Association

Introduction

The Voluntary Carbon Standard Program (VCS Program) includes the standard (VCS 2007.1) and the Program Guidelines 2007.1.

The VCS 2007.1 for project proponents, validators and verifiers provides a global standard for voluntary GHG emission reduction and removal projects and their validation and verification. It uses, as its core, the requirements in ISO 14064-2:2006, ISO 14064-3:2006 and ISO 14065:2007.

The VCS 2007.1 is part of the broader VCS Program. Additional guidance related to the VCS 2007.1 is included in the Program Guidelines 2007.1. The Program Guidelines 2007.1 provide an explanation of the VCS Program and describe the rules and procedures that regulate it.

The VCS Program includes:

- Program Guidelines 2007.1, which provides rules for project proponents and validators and verifiers governing:
 - Voluntary Carbon Standard (VCS) 2007.1;
 - Agriculture, Forestry and Other Land Use (AFOLU) Projects;
 - Project description, validation and verification report templates;
 - Grouped projects;
 - Project registration; and
 - VCS Association terms and conditions for project proponents and validators and verifiers.
- Gap Analysis assessment process including linking with other GHG Programs.

VCS Version 1 (v1) was released on 28 March 2006. VCS Version 2 (v2) was released on 16 October 2006 as a consultation document and did not replace VCS v1 as the applicable standard for project developers and validators and verifiers. The VCS v2 consultation document has been withdrawn. The VCS 2007 was released on 19 November 2007 and replaced VCS v1 as the applicable standard. Additional guidance related to the VCS 2007 was included in the Program Guidelines 2007. At the time of the publication of the standard the requirements for AFOLU projects were not fully integrated into the standard. On 18 November 2008 a revised version of the VCS 2007, labeled as VCS 2007.1, was released, fully integrating the requirements for AFOLU projects into the VCS Program. VCS 2007.1 is the applicable standard with effect from 18 November 2008. The VCS 2007 can be used for validation and verification up to and including 31 December 2008 and becomes obsolete thereafter.

For further information on the VCS Program please see the VCS Program website: www.v-c-s.org.

1 Definitions

Definitions as set out in ISO 14064-2:2006, ISO 14064-3:2006 and ISO 14065:2007, in addition to those set out below, shall apply to the VCS Program.

Agriculture, Forestry and Other Land Use (AFOLU)

This includes activities related to:

- Afforestation, Reforestation and Revegetation (ARR)
- Agricultural Land Management (ALM)
- Improved Forest Management (IFM)
- Reduced Emissions from Deforestation and Degradation (REDD)

Afforestation, Reforestation and Revegetation (ARR)

Increasing carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation.

AFOLU Pooled Buffer Account

The VCS account, containing non-tradable AFOLU carbon credits for covering the risk of unforeseen losses in carbon stocks across the AFOLU project portfolio.

Agricultural Land Management (ALM)

Decreasing GHG emissions (including increasing carbon stocks in soils and biomass) through the following eligible land use and management activities: improved cropland management, improved grassland management, and cropland and grassland land-use conversions.

Approved GHG Program

A Greenhouse Gas Program, as defined in ISO 14064:2006, that has gained approval by the VCS Board based on a gap analysis.

Commercially Sensitive Information

Trade secrets, financial, commercial, scientific, technical or other information whose disclosure could reasonably be expected to result in a material financial loss or gain, prejudice the outcome of contractual or other negotiations or otherwise damage or enrich the person or entity to which the information relates.

Double Counting

When the same GHG emissions reductions or removals from an activity are claimed by two separate entities for the purpose of demonstrating GHG emissions reductions or are sold by one entity to multiple buyers.

Double Approval Process

Two separate independent third party assessments related to the approval of VCS methodologies, the risk assessment to determine the buffer of non-tradable AFOLU carbon credits, new tools, and additionality performance standards.

Emission Trading Program

A voluntary or regulated program that allows for trading in GHG emission reduction or removal credits or allowances.

Grouped Project

A number of projects and their related methodologies included in a single VCS Project Description (VCS PD) at the time of the validation.

Improved Forest Management (IFM)

Changing forest management activities to make a long-term reduction in GHG emissions, or increase in sequestrations, through one of the following eligible activities: conversion from conventional logging to reduced impact logging (RIL), conversion of logged forests to protected forests, extending the rotation age of evenly aged managed forests, and conversion of low-productive forests to high-productive forests.

Leakage

Net changes of anthropogenic emissions by GHG sources that occur outside the project boundary, but are measurable and attributable to offsite the project activity.

Mega Projects

Projects that result in more than 1,000,000 tonnes of CO2 equivalent GHG emissions reductions or removals per year.

Methodology

The description of an approach related to:

- the determination of a project baseline scenario(s);
- identification and determination of GHG sources, sinks and reservoirs associated with the baseline scenario(s) and project;
- demonstration of the project's additionality; and
- definition of the project's monitoring process.

Methodology Deviations

Project-specific changes in an existing VCS Program approved methodology due to a change in the conditions, circumstances or nature of a project.

Methodology Revisions

Global change in an existing VCS Program approved methodology due to a change in the conditions, circumstances or nature of general developments in knowledge.

Micro Project

Projects that result in less than 5,000 tonnes of CO₂ equivalent GHG emissions reductions or removals per year.

Micro Project Verifiers

An entity which is not an accredited validator or verifier under the VCS Program, but complies with the requirements of micro project validators and verifiers as set out in Clause 7.2. of VCS 2007.1.

Project

A Greenhouse gas project as defined ISO14064-3:2006 Clause 2.14. **Note:** A project can include one or more activities.

Project Crediting Period

For non-AFOLU projects and ALM projects focusing exclusively on emissions reductions of N₂O, CH₄ and/or fossil-derived CO₂, a maximum of 10 years which may be renewed at most two times. For AFOLU projects other than such ALM projects, a minimum of 20 years up to a maximum of 100 years.

Project Crediting Period Start Date

The date on which the first monitoring period commences.

Project Start Date

Date on which the project began reducing or removing GHG emissions.

Proof of Title

Document(s) demonstrating the project proponent's right to the GHG emission reductions or removals and the ownership of the project.

Reducing (or Reduced) Emissions from Deforestation and Degradation (REDD)

Activities that reduce GHG emissions by slowing or stopping conversion of forests to nonforest land and/or reduce the degradation of forest land where forest biomass is lost.

VCS Registry

Registry system approved by the VCS Association that issues, holds, transfers, retires, suspends, cancels and provides custodial services over Voluntary Carbon Units.

VCS Project Database

Central project database that records all VCS Program approved projects and provides public access to VCS Program project information.

VCS Project Description (VCS PD)

Document that describes the VCS project's GHG emissions reduction or removal activity(ies).

Voluntary Carbon Unit (VCU)

One tonne of CO_2 equivalent GHG emission reduction or removal issued by the VCS Program and held in a VCS Registry.

2 Normative references

- Program Guidelines 2007.1;
- ISO 14064-2:2006 (see bibliography for full ISO reference);
- ISO 14064-3:2006;
- ISO 14065:2007; and
- GHG Protocol for Project Accounting, 2005, Chapter 7 guidance related to additionality test 1 common practice.
- **Note** In case of conflicts occurring between the VCS 2007.1 and the above normative references, the VCS 2007.1 shall take precedence.
- **Note** The above standards are part of the requirements laid down in the VCS 2007.1 and their requirements shall be met either by the project proponent (ISO 14064-2:2006) or validator or verifier (ISO 14064-3:2006 and ISO 14065:2007).

3 VCS Program specific issues

The following VCS Program specific issues shall apply.

3.1 Scope of the VCS Program

The scope of the VCS Program includes:

- all six Kyoto Protocol greenhouse gases;
- all technologies supported by an approved VCS Program methodology, including AFOLU project types as set out on www.v-c-s.org;
- any approved GHG Programs;
- project category(ies) which is part of an approved GHG Program;
- project methodologies, not part of an approved GHG Program, when approved under the VCS Program through the double approval process.

The scope of the VCS Program excludes:

- project(s) that can reasonably be assumed to have generated GHG emissions primarily for the purpose of their subsequent reduction, removal or destruction.
- project(s) that have created another form of environmental credit (for example renewable energy certificates) unless they provide a letter from the program operator that the credit has not been used and has been cancelled from the relevant program.

3.2 Language

The operating language of the VCS Program shall be English. The VCS PD, monitoring reports, validation and verification reports and other documents required under the VCS Program shall be in English.

3.3 Forward crediting

VCUs shall not be granted under the VCS Program for GHG emission reductions or removals that have not yet occurred and been verified.

3.4 Additional requirements for AFOLU

AFOLU projects shall meet the applicable requirements of the VCS Program.

Project proponents shall use the applicable current version of "Tool for AFOLU Methodological Issues" for the determination of project type and land eligibility, project boundary, carbon pools, baseline, leakage and the net project GHG benefits (see www.v-c-s.org)

AFOLU projects shall identify potential negative environmental and socio-economic impacts and shall take steps to mitigate them prior to generating Voluntary Carbon Units (VCUs).

AFOLU projects that convert native ecosystems to generate carbon credits are not eligible under the VCS. Documented evidence shall be provided in the VCS PD that no ARR or ALM project areas were cleared of native ecosystems within the ten year period prior to the proposed Project Start Date.

AFOLU projects shall establish an adequate buffer of non-tradable AFOLU carbon credits using the "Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination" in order to address the risk of non-permanence.

Note 1 - Such non-tradable AFOLU carbon credits will be deposited in the AFOLU Pooled Buffer Account (for the exact operating of the AFOLU Pooled Buffer Account, which ensures the full compatibility of AFOLU and non-AFOLU VCUs, see the Program Guidelines and AFOLU Guidance Document on www.v-c-s.org)

3.5 Double approval process

Under the VCS Program, new methodologies, the risk assessment to determine the buffer of non-tradable AFOLU carbon credits, IFM and REDD market leakage assessments, new tools, and additionality performance standards shall be assessed by two independent parties. The first assessment shall be carried out by a validator or verifier accredited for the VCS Program and appointed by the project proponent. This assessment shall cover all relevant VCS Program requirements.

The VCS Secretariat, acting on behalf of the VCS Board, shall choose a different VCS Program accredited validator or verifier to carry out a second assessment. This second assessment shall cover all relevant VCS Program requirements.

The project proponent shall cover the cost of the double approval process and shall agree to the costs before the second assessment commences.

Project proponents shall be given the opportunity to deal with any issues identified by the double approval process before the final decision is made by the validator or verifier appointed by the VCS Secretariat.

The VCS Board shall approve the VCS Program methodology, VCS tools or VCS Program additionality performance standard when there is unanimous agreement between the validators or verifiers completing the first and second assessment. If there is disagreement between the validator or verifier, the VCS Program methodology, VCS tools or additionality performance standard shall be rejected by the VCS Board.

Note - A project proponent who has proposed a VCS Program methodology or VCS Program additionality performance standard that has been rejected can appeal via the appeal process as set out in the most recent version of the Program Guidelines on: www.v-c-s.org.

3.6 VCS Guidance Documents

In order to support the market, the VCS Association provides guidance to specific project, validation and verification activities under the VCS. This guidance can be found on **www.v-c-s.org** and focuses on providing guidance on the VCS Program Guidelines, VCS 2007.1 and any VCS Program Tools. The intention is to assist project developers as well as validators and verifiers.

4 Linking to other GHG Programs

The VCS Program allows the use of VCS approved GHG Program(s) and their project methodologies if approved by the VCS Board.

A GHG Program shall demonstrate compliance with the requirements of the VCS Program through a gap analysis. The conclusions of the gap analysis are considered and the GHG Program approved or not approved by the VCS Board. The requirements for the gap analysis are set out in the Program Guidelines on www.v-c-s.org.

5 Project level requirements

5.1 Principles

Principles taken from ISO 14064-2:2006, clause 3. General

The application of principles is fundamental to ensure that GHG-related information is a true and fair account. The principles are the basis for, and will guide the application of, requirements in this part of ISO 14064:2006 and the VCS 2007.1.

Relevance

Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user.

Completeness

Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures.

Consistency

Enable meaningful comparisons in GHG-related information.

Accuracy

Reduce bias and uncertainties as far as is practical.

Transparency

Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence.

Conservativeness

Use conservative assumptions, values and procedures to ensure that GHG emission reductions or removal enhancements are not overestimated.

5.2 General requirements

Projects shall meet all the requirements of the VCS 2007.1, including referenced clauses of the most recent Program Guidelines on www.v-c-s.org.

Projects validated under the VCS v1 are recognised under the VCS 2007.1 for their crediting period subject to the conditions laid out in Clause 5.2.1 below.

The project proponent shall apply an approved VCS Program methodology or a methodology from an approved GHG Program based on the list of current VCS Program approved GHG Programs and methodologies as set out on www.v-c-s.org.

Certain approved GHG Program methodologies or VCS Program approved methodologies are limited in application by time or geography. See **www.v-c-s.org** for the most recent list of approved VCS Program methodologies and methodology limitations.

5.2.1 Project start date

VCS Version 1

Projects validated under the VCS v1 shall be grandfathered into the VCS 2007.1. Validation of projects against the VCS v1 shall have been completed or contracted before 19 November 2007. In relation to contracts entered into before 19 November 2007, validation shall be completed by 19 May 2008 and proof of contracting prior to 19 November 2007 shall be provided.

Verification against the VCS v1 shall have been completed before 19 November 2007 or shall be contracted before 19 November 2007 for that specific single monitoring period. Future monitoring periods shall be verified against the VCS 2007.1. Projects validated against the VCS v1, but that have not contracted a verifier for that specific single monitoring period by 19 November 2007, shall be verified against the VCS 2007.1.

The Project Crediting Period for the VCS v1 shall be the same as for the VCS 2007.1 commencing at the specific Project Crediting Period Start Date.

VCS 2007.1

The Project Start Date for non-AFOLU projects for the VCS 2007.1 shall not be before 1 January 2002.

The Project Start Date for AFOLU projects can be earlier than 1 January 2002, provided the following conditions are met:

- project validation and verification against the VCS has been completed by 1 October 2010;
- the project proponent can verifiably demonstrate that the project was designed and implemented as a climate change mitigation project from its inception; and
- prior to 1 January 2002, the project applied an externally reviewed methodology and engaged independent carbon monitoring experts to assess and quantify the project's baseline scenario and net emissions reductions or removals.

Projects shall not be validated against the VCS 2007.1 before 18 November 2008.

For non-AFOLU projects, VCS 2007.1 validation shall be completed within two years of the Project Start Date, or shall be completed or contracted before 19 November 2008. In relation to validation contracts entered into before 19 November 2008, validation shall be completed by 19 November 2009 and proof of contracting prior to 19 November 2008 shall be provided. AFOLU projects starting on or after 1 January 2002 are not required to complete validation within a specific time frame.

The earliest Project Crediting Period Start Date under the VCS 2007.1 shall be 28 March 2006 for non-AFOLU projects and 1 January 2002 for AFOLU projects.

5.2.2 Project scope

Projects shall use one of the VCS Program approved methodologies.

Projects that propose a methodology not previously approved under the VCS Program shall have the methodology approved through the double approval process as outlined in clause 3.5 above.

Project proponents of projects that reduce GHG emissions from activities that:

- are included in an emissions trading program; or
- take place in a jurisdiction or sector in which binding limits are established on GHG emissions;

shall provide evidence that the reductions or removals generated by the project have or will not be used in the emissions trading program or for the purpose of demonstrating compliance with the binding limits that are in place in that jurisdiction or sector. Such evidence could include:

- a letter from the program operator or designated national authority that emissions allowances (or other GHG credits used in the program) equivalent to the reductions or removals generated by the project have been cancelled from the program; or national cap as applicable or;
- purchase and cancellation of GHG allowances equivalent to the GHG emissions reductions or removals generated by the project related to the program or national cap.

Note: a list of emissions trading programs is on www.v-c-s.org.

Project proponents shall not claim GHG credits from one project under more than one GHG Program.

Projects rejected by other GHG Programs, due to procedural or eligibility requirements where the GHG Program applied has been approved by the VCS Board, can be considered for VCUs but project proponents for such a project shall:

- clearly state in its VCS PD all GHG Programs for which the project has applied for credits and why the project was rejected, such information shall not be deemed commercially sensitive information; and
- provide the VCS Program validator and verifier, VCS Program project database and VCS Program Registry with the actual rejection document(s) including any additional explanations; and
- have the project validated against the VCS 2007.1 requirements.

In the above case the validation against the VCS 2007.1 requirements shall be a full repeat validation rather than a validation based on the difference between the GHG Program which rejected the project and the VCS 2007.1 requirements.

Projects rejected by other GHG Programs, due to procedural or eligibility requirements and where the GHG Program is not approved by the VCS Program can be considered for VCUs if its project methodology complies with a VCS Program methodology or it has been approved through the VCS Program double approval process; and if it:

- clearly states in its VCS PD all GHG Programs for which the project has applied for credits and why the project was rejected, such information shall not be deemed Commercially Sensitive Information; and
- provides the VCS Program validator and verifier, VCS Project Database, and VCS Registry with the actual rejection document(s) including any additional explanations; and
- has the project validated against the VCS 2007.1 requirements.

5.2.3 Project crediting period

At each renewal of the Project Crediting Period a VCS Program approved validator shall determine that the original project baseline scenario(s) and additionality is still valid or has been updated taking account of new data and changed VCS Program requirements where applicable.

5.3 Methodology deviations

Methodology Deviations shall be project specific.

Methodology Deviations shall not be permitted where they result in changes to the conservativeness of the:

- baseline scenario;
- additionality determination;
- included project GHG sources, sinks and reservoirs.

Methodology Deviations shall be permitted where they do not impact negatively on the

conservativeness of the VCS Program approved methodology's criteria and procedures to quantify data leading to GHG emission reductions or removals (reference clause 6.4).

Note – Methodology Deviations related to increasing the accuracy of data are acceptable.

Methodology Deviations and their consequences shall be reported as part of the public validation and verification report.

5.4 Methodology revisions

Methodology Revision shall be managed via the double approval process for VCS Program methodologies.

Methodology Revisions related to approved GHG Programs shall be managed as per the requirements of the applicable GHG Program.

5.5 Standards and factors

Standards and factors used to derive GHG emission data as well as any supporting data for additionality and baseline scenario(s) shall meet the following requirements:

- be publicly available from a reputable and recognised source (e.g. IPCC, published Government data etc); and
- be reviewed as part of its publication by a recognised competent organization.

5.6 Project Grouping

The VCS 2007.1 allows for grouped projects.

A grouped project shall be described in one VCS PD which shall include a description of the central GHG information system and controls associated with the project and its monitoring.

A grouped project's verification reports shall explain and document the sampling carried out by the VCS verifier. The sampling of a grouped project shall take account of any sub groups and associated activities within each sub group. The verification report shall also set out any changes to the sampling due to findings during the verification.

Projects that intend to apply for the VCS Program VCUs as part of a grouped project shall also comply with the VCS Program requirements for grouped projects, detailed in the most recent version of the Program Guidelines 2007.1 on www.v-c-s.org.

5.7 Content of the VCS PD

The project proponent shall describe the project and its context in a VCS PD.

The project proponent shall state whether it has applied for GHG emission reduction or removal credits through any other GHG Program and the success of any of these applications.

In cases where the project proponent has applied for emission credits from another GHG Program, the VCS PD shall include proof of registration of the project through the GHG Program. The GHG Program operator shall provide a written guarantee to be included with the project proponent's VCS PD that any GHG emission reductions or removals shall not have been previously retired within the operator's GHG Program and that the reductions shall be cancelled so that they can no longer be used within the operator's GHG Program. Hence they shall only be accounted for under a VCS Registry.

The VCS PD shall meet the content and layout requirements for a VCS PD as set out on **www.v-c-s.org**.

The VCS PD shall include the following requirements as set down in **ISO 14064-2:2006** clause 5.2:

- project title, purpose(s) and objective(s);
- type of GHG project;
- project location, including geographic and physical information allowing for the unique identification and delineation of the specific extent of the project;
- conditions prior to project initiation;
- a description of how the project will achieve GHG emission reductions and/or removal enhancements;
- project technologies, products, services and the expected level of activity;
- aggregate GHG emission reductions and removal enhancements, stated in tonnes of CO₂e, likely to occur from the GHG project;
- identification of risks that may substantially affect the project's GHG emission reductions or removal enhancements;
- roles and responsibilities, including contact information of the project proponent, other project participants, relevant regulator(s) and/or administrators of any GHG Program(s) to which the GHG project subscribes;
- any information relevant for the eligibility of a GHG project under a GHG Program and quantification of GHG emission reductions or removal enhancements, including legislative, technical, economic, sectoral, socio-cultural, environmental, geographic, site-specific and temporal information;
- a summary environmental impact assessment when such an assessment is required by applicable legislation or regulation;
- relevant outcomes from stakeholder consultations and mechanisms for on-going communication; and
- chronological plan for the date of initiating project activities, date of terminating the project, frequency of monitoring and reporting and the project period, including relevant project activities in each step of the GHG project cycle.

In addition the VCS PD shall include notification of relevant local laws and regulations related to the project and demonstrate compliance with them.

Commercially Sensitive Information can be excluded from the VCS PD and validation and verification reports when published on the VCS Project Database but it shall be included in the VCS PD and validation and verification reports submitted to the VCS Registry operator. All project information shall be presumed to be available for public scrutiny. When this is not the case the project proponent shall demonstrate that information is commercially sensitive. At a minimum, the project baseline scenario, calculations, monitoring report and demonstration of additionality shall be publicly disclosed.

Any Commercially Sensitive Information that has been excluded from the VCS PD and validation and verification reports shall be listed by the project proponent and provided to the validator or verifier, the VCS Project Database and the applicable VCS Registry. If no list is provided all information in the VCS PD and validation and verification reports shall be disclosed on the VCS Project Database.

The validator or verifier shall check that any information requested as commercially sensitive meets the VCS Program definition of Commercially Sensitive Information.

The VCS PD shall be accompanied by Proof of Title, which shall contain one of the following:

- a legislative right;
- a right under local common law;

- ownership of the plant, equipment and/or process generating the reductions/ removals; or
- a contractual arrangement with the owner of the plant, equipment or process that grants all reductions/removals to the proponent.

For AFOLU projects, excluding ALM projects focusing exclusively on emissions reductions of N₂O, CH₄ and/or fossil-derived CO₂, the VCS PD shall also be accompanied by a project risk analysis prepared in accordance with the "Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination" and "Guidance for Agriculture, Forestry and Other Land Use Projects (2007.1, 2008)".

5.8 Additionality

In addition to using a VCS Program approved methodology; the project proponent shall demonstrate that the project is additional using one of the following tests:

Test 1 - The project test:

Step 1: Regulatory Surplus

The project shall not be mandated by any enforced law, statute or other regulatory framework.

Step 2: Implementation Barriers

The project shall face one (or more) distinct barrier(s) compared with barriers faced by alternative projects.

- **Investment Barrier** Project faces capital or investment return constraints that can be overcome by the additional revenues associated with the generation of VCUs.
- **Technological Barriers** Project faces technology-related barriers to its implementation.
- Institutional barriers Project faces financial, organizational, cultural or social barriers that the VCU revenue stream can help overcome.

Step 3: Common Practice

- project type shall not be common practice in sector/region, compared with projects that have received no carbon finance.
- if it is common practice, the project proponents shall identify barriers faced compared with existing projects.
- demonstration that the project is not common practice shall be based on guidance in the GHG Protocol for Project Accounting, Chapter 7.

Test 2 – Performance test

Step 1: Regulatory Surplus

The project shall not be mandated by any enforced law, statute or other regulatory framework.

Step 2: Performance Standard

The emissions generated per unit output by the project shall be below the level that has been approved by the VCS Program for the product, service, sector or industry, as the level defined to ensure that the project is not business-as-usual

Performance standard based additionality tests shall be approved through the double approval process and by the VCS Board. The list of approved performance standards is on www.v-c-s.org.

Test 3 – Technology test

Step 1: Regulatory Surplus

The project shall not be mandated by any enforced law, statute or other regulatory framework.

Step 2: Technology Additionality

The project and its location are contained in the list of project types and applicable areas approved as being additional by the VCS Program. These project types are defined as those in which all projects would also be deemed additional using Additionality test 1 and will be determined on a case by case basis. The approved list is available on www.v-c-s.org.

5.9 Identifying GHG sources, sinks and reservoirs relevant to the project

Refer to Clause 6, under Methodologies.

5.10 Determining the baseline scenario

The project proponent shall select the most conservative baseline scenario for the project based on the requirements in the applicable VCS methodology.

The baseline scenario shall set out the geographic scope as applicable to the project.

In addition to meeting requirements in ISO 14064-2:2006 clause 5.4, the project proponent shall also demonstrate that it has met all relevant regulations, legislation and project approvals (e.g. environmental permits).

5.11 Monitoring the GHG project

Text taken from ISO 14064-2:2006, clause 5.10.

The project proponent shall establish and maintain criteria and procedures for obtaining, recording, compiling and analysing data and information important for quantifying and reporting GHG emissions and/or removals relevant for the project and baseline scenario (i.e. GHG information system). Monitoring procedures should include the following:

- purpose of monitoring;
- types of data and information to be reported including units of measurement;
- origin of the data;
- monitoring methodologies, including estimation, modelling, measurement or calculation approaches;
- monitoring times and periods, considering the needs of intended users;
- monitoring roles and responsibilities;
- GHG information management systems, including the location and retention of stored data.

Where measurement and monitoring equipment is used, the project proponent shall ensure the equipment is calibrated according to current good practice.

The project proponent shall apply GHG monitoring criteria and procedures on a regular basis during project implementation.

5.12 Monitoring reports for the GHG project

Monitoring reports shall include all the monitoring data, calculations, estimations, conversion factors and others standard factors as defined in the monitoring clause of the applied VCS Program methodology and set out in the VCS PD. A list of VCS approved methodologies is available on www.v-c-s.org.

5.13 Records relating to the project

The project proponent shall keep all documents and records in a secure and retrievable manner for at least two years after the end of the project crediting period.

5.14 Information to validator and verifier

For validation the project proponent shall make available to the validator the VCS PD, proof of title and any requested supporting information and data needed to evidence statements and data in the VCS PD and proof of title.

The project proponent shall make the VCS PD and validation report available to the verifiers as well as a monitoring report applicable to the period of monitoring and any requested supporting information and data needed to evidence statements and data in the monitoring report.

6 Methodologies

6.1 General requirements

The list of VCS Program approved methodologies can be found on www.v-c-s.org.

All methodologies applying for approval under the VCS Program shall be approved via the double approval process.

VCS Program methodologies shall comply with all requirements in the VCS 2007.1 clause 6.1 to 6.4.4.

VCS Program methodologies shall include:

- applicability criteria that defines the area of project eligibility;
- a process that determines whether the project is additional or not (based on criteria laid down in clause 6.4);
- determination criteria for the most likely baseline scenario; and
- all necessary monitoring aspects related to monitoring and reporting of accurate and reliable GHG emission reductions or removals.

Methodologies shall be informed by a comparative assessment of the project and its alternatives in order to identify the baseline scenario. Such an analysis shall include, at a minimum, a comparative assessment of the implementation barriers and net benefits faced by the project and its alternatives.

Methodologies rejected by other GHG Programs, due to procedural or eligibility requirements where the GHG Program applied has been approved by the VCS Board; can be considered for VCUs but project proponents in this case shall:

- document the methodology; and
- clearly state in its VCS PD all GHG Programs for which the methodology has applied for approval and why the methodology was rejected, such information shall not be deemed commercially sensitive information; and
- provide the VCS Program verifier with the actual rejection document(s) including explanation; and
- have the methodology approved through the VCS Program double approval process.

6.2 Identifying GHG sources, sinks and reservoirs relevant to VCS methodologies Text taken from ISO 14064-2:2006, clause 5.3.

The project proponent shall select or establish criteria and procedures for identifying and

assessing GHG sources, sinks and reservoirs controlled, related to, or affected by the project.

The VCS PD shall include identification and assessment of GHG sources, sinks and reservoirs as being:

- controlled by the project proponent:
- related to the GHG project; or
- affected by the GHG project.

6.3 Determine the baseline scenario relevant to VCS methodologies

The project proponent shall select the most conservative baseline scenario for the methodology. This shall reflect what most likely would have occurred in the absence of the project

The principle of conservativeness as set out in clause 3.7 of ISO 14064-2:2006 shall apply.

Text taken from ISO 14064-2:2006, clause 5.4.

The project proponent shall select or establish criteria and procedures for identifying and assessing potential baseline scenarios considering the following:

- the project description, including identified GHG sources, sinks and reservoirs;
- existing and alternative project types, activities and technologies providing equivalent type and level of activity of products or services to the project;
- data availability, reliability and limitations;
- other relevant information concerning present or future conditions, such as legislative, technical, economic, socio-cultural, environmental, geographic, site-specific and temporal assumptions or projections.

The project proponent shall demonstrate equivalence in type and level of activity of products or services provided between the project and the baseline scenario and shall explain, as appropriate, any significant differences between the project and the baseline scenario.

The project proponent shall select or establish, explain and apply criteria and procedures for identifying and justifying the baseline scenario.

In developing the baseline scenario, the project proponent shall select the assumptions, values and procedures that help ensure that GHG emission reductions or removal enhancements are not overestimated.

The project proponent shall select or establish, justify and apply criteria and procedures for demonstrating that the project results in GHG emission reductions or removal enhancements that are additional to what would occur in the baseline scenario.

The baseline scenario shall set out the geographic scope as applicable to the methodology.

6.3.1 Identifying GHG sources, sinks and reservoirs for the baseline scenario

Text taken from ISO 14064-2:2006, clause 5.5.

In identifying GHG sources, sinks and reservoirs relevant to the baseline scenario, the project proponent shall:

- consider criteria and procedures used for identifying the GHG sources, sinks and reservoirs relevant for the project;
- if necessary, explain and apply additional criteria for identifying relevant baseline GHG sources, sinks and reservoirs; and
- compare the project's identified GHG sources, sinks and reservoirs with those identified in the baseline scenario.

6.4 Additionality

The methodology shall describe how it is additional based on the additionality requirements in clause 5.8 above.

6.5 Monitoring, quantification and reporting related to the methodology

6.5.1 Selecting relevant GHG sources, sinks and reservoirs for monitoring related to the methodology

Text taken from ISO 14064-2:2006, clause 5.6.

The project proponent shall select or establish criteria and procedures for selecting relevant GHG sources, sinks and reservoirs for either regular monitoring or estimation.

The project proponent shall justify in the VCS PD not selecting any relevant GHG source, sink and reservoir for regular monitoring.

6.5.2 Quantification of GHG emissions and /or removals related to the methodology

Text taken from ISO 14064-2:2006, clause 5.7.

The project proponent shall select or establish criteria, procedures and/or methodologies for quantifying GHG emissions and/or removals for selected GHG sources, sinks and/or reservoirs.

Based on selected or established criteria and procedures, the project proponent shall quantify GHG emissions and/or removals separately for:

- each relevant GHG for each GHG source, sink and/or reservoir relevant for the project; and
- each GHG source, sink and/or reservoir relevant for the baseline scenario.

When highly uncertain data and information are relied upon, the project proponent shall select assumptions and values that ensure that the quantification does not lead to an overestimation of GHG emission reductions or removal enhancements.

The project proponent shall estimate GHG emissions and/or removals by GHG sources, sinks and reservoirs relevant for the project and relevant for the baseline scenario, but not selected for regular monitoring.

The project proponent shall establish and apply criteria, procedures and/or methodologies to assess the risk of a reversal of a GHG emission reduction or removal enhancement (i.e. permanence of GHG emission reduction or removal enhancement).

If applicable, the project proponent shall select or develop GHG emissions or removal factors that:

- are derived from a recognized origin;
- are appropriate for the GHG source or sink concerned;
- are current at the time of quantification;
- take account of the quantification uncertainty and are calculated in a manner intended to yield accurate and reproducible results; and
- are consistent with the intended use of the VCS PD or monitoring report as applicable.

6.5.3 Quantification of overall GHG emission reductions and removal enhancements related to the methodology

Text taken from ISO 14064-2:2006, clause 5.8.

The project proponent shall select or establish criteria, procedures and/or methodologies for quantifying GHG emission reductions and removal enhancements during project implementation.

The project proponent shall apply the criteria and methodologies selected or established to quantify GHG emission reductions and removal enhancements for the GHG project. GHG emission reductions or removal enhancements shall be quantified as the difference between the GHG emissions and/or removals from GHG sources, sinks and reservoirs relevant for the project and those relevant for the baseline scenario.

The project proponent shall quantify, as appropriate, GHG emission reductions and removal enhancements separately for each relevant GHG and its corresponding GHG sources, sinks and/or reservoirs for the project and the baseline scenario.

The project proponent shall use tonnes as the unit of measure and shall convert the quantity of each type of GHG to tonnes of CO2e using appropriate global warming potentials.

6.5.4 Managing data quality related to the methodology

Text taken from ISO 14064-2:2006, clause 5.9.

The project proponent shall establish and apply quality management procedures to manage data and information, including the assessment of uncertainty, relevant to the project and baseline scenario.

The project proponent should reduce, as far as is practical, uncertainties related to the quantification of GHG emission reductions or removal enhancements

7 Validation and verification process and requirements

7.1 Introduction

Validation and verification is a risk-based process carried out in conformance with ISO 14064-3:2006 and ISO 14065:2007.

The validator or verifier select samples of data and information to be validated or verified to provide reasonable assurance and to meet the materiality requirements of the specific project.

7.2 General requirements

Projects seeking registration under the VCS Program shall be validated and verified by a validator and verifier accredited under either:

- an approved GHG Program (within the scope of their accreditation); or
- ISO 14065:2007 with an accreditation scope specifically for the VCS Program.

Validation and verification shall be carried out in conformance with the requirements in ISO 14064-3:2006. Additional requirements on validation and verification over and above those in ISO 14064-3:2006 are set out below and shall be adhered to.

Validation and verification can be carried out by the same accredited validation and verification body. They shall be accredited for both:

- validation and verification; and
- the scope of the applicable methodology.

Validation of projects shall occur at the time of, or before the first verification.

Micro projects can be validated and verified by micro project validators and verifier who shall comply with the following requirements:

- clause 5.4-impartiality, clause 6-competence, clause 7-communication and records, clause 9-appeal and clause 10-complaints of ISO 14065:2007; and
- \bullet carry out validation and verification in conformance with ISO 14064-3:2006 and the VCS 2007

Micro project validators and verifier can consist of one person teams.

Micro project validator/verifiers shall not carry validation or verification for larger projects or the double approval process.

The process for approval of micro project validators and verifier shall be conducted as set down in Program Guidelines 2007.

7.3 Validation and verification process

7.3.1 General requirement

In addition to ISO 14064-3:2006 the following shall apply:

- level of assurance shall be reasonable for both validation and verification;
- criteria shall be VCS 2007 or other GHG Program as approved under the VCS Program;
- objective shall be in conformance with the VCS 2007 requirements and VCS Program methodologies as applicable to the specific project; and
- materiality shall be 5 per cent except for mega projects where it shall be 1 per cent.

If change(s) has/have occurred to a VCS methodology, VCS accredited validators and verifiers shall decide whether the change represents a methodology deviation or methodology revision and if it is a methodology deviation it is acceptable.

7.3.2 Competence

Validation and verification bodies and validation and verification teams shall meet the competence requirements as set out in ISO 14065:2007.

ISO 14065:2007 references to 'GHG Programme' shall mean the VCS Program.

7.3.3 Validation and verification reporting

Validation and verification reports shall:

- be written in English;
- describe the validation and verification process;
- describe any issues raised during the validation and verification and their resolutions; and
- document the conclusions reached by the validation and verification body.

Validation and verification reports shall comply with the template requirements as set out on <u>www.v-c-s.org</u>. They shall include both a validation and verification statement as appropriate to the activity undertaken.

7.3.4 Validation and verification statement

The verification statement shall state the actual amount of VCUs associated with the project specific monitoring report that has been verified.

Text taken from ISO 14064-3:2006, clause 5.9.

The validation or verification statement shall:

- be addressed to the VCS Board;
- describe the level of assurance of the validation or verification statement;
- describe the objectives, scope and criteria of the validation or verification;
- describe whether the data and information supporting the GHG assertion were hypothetical, projected and/or historical in nature;
- be accompanied by the responsible party's GHG assertion; and
- include the validator or verifier's conclusion on the GHG assertion, including any qualifications or limitations.

7.3.5 Records of validation and verification

The validators and verifiers shall keep all documents and records in a secure and retrievable manner for at least two years after the end of the project crediting period, even if they do not carry out verification for the whole project crediting period.

8 **Request for issuance**

Request for issuance shall be made by the project proponent to an approved VCS Program registry based on the requirements set out under the most recent version of the Program Guidelines clause on VCU registration.

9 VCS Program Accreditation

The VCS Program accepts accreditation granted under other GHG Programs if approved by the VCS Board and accreditation based on ISO 14065:2007 when the accreditation scope includes the VCS 2007.1 requirements.

Validation or verification bodies shall only provide validation and verification for VCS 2007.1 in the project scope(s) for which they hold VCS Program accreditation.

9.1 Accreditation scope

The accreditation scope for the VCS 2007.1 shall include the:

- VCS 2007.1 requirements; and
- methodologies where the validation and verification body has demonstrated competence.

9.2 Accreditation requirements

Validation and verification bodies shall meet requirements in ISO 14065:2007 to gain accreditation for the VCS Program.

10 Bibliography

- a) ISO 14064-2:2006 Greenhouse gases Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.
- **b)** ISO 14064-3:2006 Greenhouse gases Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions
- c) ISO 14065:2007 Greenhouse gases Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.
- d) World Resources Institute and World Business Council for Sustainable Development, 2005, The GHG Protocol for Project Accounting.
- e) Tool for AFOLU Methodological Issues
- f) Tool for AFOLU Non-Permanence Risk Analysis and Buffer Determination

Intellectual Property Rights, Copyright and Disclaimer

This document contains materials the copyright and other intellectual property rights in which are vested in the VCS Association or which appear with the consent of the copyright owner. These materials are made available for you to review and to copy for the use (the "Authorised Use") of your establishment or operation in a project under the VCS Program ("the Authorised Use").

Except for the Authorised Use, all commercial use of this document is prohibited. You are not permitted to view, download, modify, copy, distribute, transmit, store, reproduce or otherwise use, publish, licence, transfer, sell or create derivative works (in whatever format) from this document or any information obtained from this document otherwise than for the Authorised Use or for personal, academic or other non-commercial purposes.

All copyright and other proprietary notices contained in this document must be retained on any copy that you make. All other rights of the copyright owner not expressly dealt with above are reserved.

No representation, warranty or guarantee express or implied is made in this document. No representation, warranty or guarantee express or implied is made that the information provided is accurate, current or complete. Whilst care is taken in the collection and provision of this information, the VCS Association and its officers, employees, agents, advisers and sponsors will not be liable for any errors, omissions, misstatements or mistakes in any information or damages resulting from the use of this information or any decision made or action taken in reliance on this information.