

VCS Standard

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1 | Introduction

The *VCS Standard* provides a global standard for GHG emission reduction and removal projects and programs. It uses as its core the requirements set out in *ISO 14064-2:2006*, *ISO 14064-3:2006* and *ISO 14065:2007*. The two principal documents of the program are the *VCS Program Guide* and the *VCS Standard*. The *VCS Program Guide* describes the rules and requirements governing the VCS Program and further describes the constituent parts of the program such as the project and program registration process, the VCS registry system, the methodology approval process and the accreditation requirements for validation/verification bodies. The *VCS Standard* provides the requirements for developing projects, programs and methodologies, as well as the requirements for validation, monitoring and verification of projects, programs and GHG emission reductions and removals. The *VCS Standard* is supported by other documents that provide further requirements specific to agriculture, forestry and other land use (AFOLU), ozone-depleting substances projects and methodologies, and jurisdictional programs and nested REDD+ projects. The *VCS Program Guide* should be read before using the *VCS Standard*.

The VCSA recognizes 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. In particular, the sections in this document on project and methodology requirements include text drawn from *ISO 14064-2:2006* clause 5 and *ISO 14064-3:2006* clause 4.9, amended where necessary to fit the context of the VCS Program.

1.1 VERSION

All information about version control under the VCS Program is contained in the *VCS Program Guide*.

This document will be updated from time-to-time and readers shall ensure that they are using the most current version of the document. Where external documents are referenced, such as the *IPCC 2006 Guidelines for National GHG Inventories*, and such documents are updated, the most recent version of the document shall be used.

2 | VCS Program Specific Issues

2.1 SCOPE OF VCS PROGRAM

2.1.1 The scope of the VCS Program includes:

- 1) The six Kyoto Protocol greenhouse gases.
- 2) Ozone-depleting substances as set out in VCS document *ODS Requirements*.

- 3) Project activities supported by a methodology approved under the VCS Program through the methodology approval process.
- 4) Project activities supported by a methodology approved under a VCS approved GHG program, unless explicitly excluded under the terms of VCS approval.
- 5) Jurisdictional REDD+ programs and nested REDD+ projects as set out in VCS document *JNR Requirements*.

The scope of the VCS Program excludes:

- 1) Projects that can reasonably be assumed to have generated GHG emissions primarily for the purpose of their subsequent reduction, removal or destruction.
- 2) Projects that reduce hydrofluorocarbon (HFC) emissions from the production of HCFC-22 in Kyoto Protocol Annex B countries.

2.2 LANGUAGE

- 2.2.1** The operating language of the VCS Program is English. The project and program description, validation report, monitoring report, verification report and all other documentation (including all and any appendices) required under the VCS Program shall be in English.

2.3 TIMING OF CREDITING

- 2.3.1** VCU shall not be issued under the VCS Program for GHG emission reductions or removals that have not been verified.
- 2.3.2** Project activities are eligible for immediate crediting of future avoided emissions under the conditions set out below, which shall be addressed at the level of the methodology:
- 1) The project immediately avoids future streams of GHG emissions as a result of an upfront intervention that permanently precludes further emissions from the source. VCUs shall be issued only after such an intervention has occurred and the GHG emission reductions have been verified. Examples of such activities include projects that destroy chlorofluorocarbons recovered from refrigeration equipment thereby immediately precluding their future release into the atmosphere, and composting projects that divert organic waste from landfill sites thereby immediately precluding future methane emissions. A REDD project would not qualify for immediate crediting because future streams of GHG emissions are not permanently precluded.
 - 2) The physical processes that would generate GHG emissions in the absence of an intervention are well-understood, stable and quantifiable. Models used to simulate such processes shall meet the requirements set out in Section 4.1.6. Any default factors associated with input parameters shall meet the requirements set out in Section 4.1.7.
 - 3) VCUs may be issued only for GHG emissions avoided over a ten year period, even if such GHG emissions are likely to have continued over a longer period of time under the baseline

scenario. For example, a composting project that diverts organic waste from a landfill site would be eligible for crediting (in relation to a specific amount of composted organic waste) for the GHG emissions that would have occurred at the landfill site over a ten year period, and any emissions that would have occurred beyond the ten year period (in relation to the specific amount of composted organic waste) are not eligible. Note that in this particular example the ten year rule applies to the specific amount of composted organic waste and the usual rules on duration of the project and project crediting period still apply.

2.4 PRINCIPLES

- 2.4.1** The application of principles is fundamental in ensuring that GHG-related information is a true and fair account. The principles below shall provide the basis for, and shall guide the application of, the VCS rules and requirements.

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

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 net GHG emission reductions or removals are not overestimated.

Note – Accuracy should be pursued as far as possible, but the hypothetical nature of baselines, the high cost of monitoring of some types of GHG emissions and removals, and other limitations make accuracy difficult to attain in many cases. In these cases, conservativeness may serve as a moderator to accuracy in order to maintain the credibility of project and program GHG quantification.

3 | Project Requirements

3.1 GENERAL REQUIREMENTS

- 3.1.1** Projects shall meet all applicable rules and requirements set out under the VCS Program, including this document. Projects shall be guided by the principles set out in Section 2.4.1.
- 3.1.2** Agriculture, forestry and other land use projects shall meet the rules and requirements set out in VCS document *AFOLU Requirements*. Ozone-depleting substances projects shall meet the rules and requirements set out in VCS document *ODS Requirements*.
- 3.1.3** Projects shall apply methodologies eligible under the VCS Program. Methodologies shall be applied in full, including the full application of any tools or modules referred to by a methodology, noting the exception set out in Section 3.14.1. The list of methodologies and their validity periods is available on the VCS website.
- 3.1.4** Where projects apply methodologies that permit the project proponent its own choice of model (see VCS document *Program Definitions* for definition of model), such model shall meet with the requirements set out in Section 4.1.6(2)-(6) and it shall be demonstrated at validation that the model is appropriate to the project circumstances (ie, use of the model will lead to an appropriate quantification of GHG emission reductions or removals).
- 3.1.5** Where projects apply methodologies that permit the project proponent its own choice of third party default factor or standard to ascertain GHG emission data and any supporting data for establishing baseline scenarios and demonstrating additionality, such default factor or standard shall meet with the requirements set out in Section 4.1.7(1).
- 3.1.6** Projects shall preferentially apply methodologies that use performance methods (see Section 4.1.11 for further information on performance methods) where a methodology is applicable to the project that uses a performance method for determining both additionality and the crediting baseline (ie, a project shall not apply a methodology that uses a project method where such a performance method is applicable to the project). Methodologies approved under the VCS Program that use performance methods provide a list of similar methodologies that use project methods (that were approved under the VCS Program or an approved GHG program at the time the performance method was developed). Such lists are not necessarily exhaustive but can serve as the starting point for determining whether a performance method is applicable to the project. Following the approval of a methodology that uses a performance method, projects may use any applicable pre-existing methodology that uses a project method for a six-month grace period.
- 3.1.7** Where projects apply methodologies from approved GHG programs, they shall comply with any specified capacity limits (see VCS document *Program Definitions* for definition of capacity limit) and any other relevant requirements set out with respect to the application of the methodology

and/or tools referenced by the methodology under those programs. Where the rules and requirements under an approved GHG program conflict with the rules and requirements of the VCS Program, the rules and requirements of the VCS Program shall take precedence.

- 3.1.8** Where the VCSA issues new requirements relating to projects, registered projects do not need to adhere to the new requirements for the remainder of their project crediting periods (ie, such projects remain eligible to issue VCUs through to the end of their project crediting period without revalidation against the new requirements). The new requirements shall be adhered to at project crediting period renewal, as set out in Section 3.8.5.

3.2 MULTIPLE PROJECT ACTIVITIES

- 3.2.1** Projects may include multiple project activities where the methodology applied to the project allows more than one project activity and/or where projects apply more than one methodology.
- 3.2.2** Where more than one methodology has been applied to a project with multiple project activities, the following applies:
- 1) Each project activity shall be specified separately in the project description, referencing the relevant methodology.
 - 2) All criteria and procedures set out in the applied methodologies in relation to applicability conditions, demonstration of additionality, determination of baseline scenario and GHG emission reduction and removal quantification shall be applied separately to each project activity, noting the following:
 - a) A single set of criteria and procedures for the demonstration of additionality may be applied where the applied methodologies reference the same additionality tool and/or procedures, and where separate demonstration of additionality for each project activity is not practicable. For example, separate demonstration of additionality may not be practicable in project activities that are implemented at a single facility and therefore represent a single investment. The onus is upon the project proponent to demonstrate to the validation/verification body that separate demonstration of additionality is not practicable, failing which separate demonstration of additionality shall be provided. Where a methodology specifies requirements for demonstrating additionality in addition to those specified in the referenced additionality tool and/or procedures, such requirements shall be adhered to.
 - b) The criteria and procedures for identifying the baseline scenario may be combined where the relevant methodologies or the referenced additionality tool and/or procedures specify criteria and procedures for combining baseline scenarios.
 - 3) The criteria and procedures relating to all other aspects of the methodologies may be combined.
 - 4) Where AFOLU projects are required to undertake non-permanence risk assessment and buffer withholding determination, this shall be done separately for each project activity.

Note – Where a single methodology is applicable to more than one project activity and where the methodology does not provide clear procedures for the application of more than one project activity, the above requirements shall be adhered to.

3.3 MULTIPLE INSTANCES OF PROJECT ACTIVITIES

- 3.3.1** Projects may include more than one project activity instance, such as a wind power project that includes a number of wind turbines. Inclusion of further project activity instances subsequent to initial validation of a non-grouped project is not permitted (see Section 3.4 for information on grouped projects). The baseline determination and additionality demonstration for all project activity instances shall be combined (eg, multiple wind turbines shall be assessed in combination rather than individually).
- 3.3.2** Where a project includes multiple project activity instances from multiple project activities, the project activity instances from each project activity shall be assessed in accordance with Section 3.2.
- 3.3.3** Non-grouped projects with multiple project activity instances shall not exceed any capacity limits to which a project activity is subject.

3.4 GROUPED PROJECTS

- 3.4.1** Grouped projects are projects structured to allow the expansion of a project activity subsequent to project validation. Validation is based upon the initial project activity instances identified in the project description. The project description sets out the geographic areas within which new project activity instances may be developed and the eligibility criteria for their inclusion. New instances meeting these pre-established criteria may then be added to the project subsequent to project validation, as set out in the sections below. These sections provide the requirements for all grouped projects, which are further expanded upon in VCS document *AFOLU Requirements*. VCS methodologies may also provide additional specifications for grouped projects.

Note – Project activity and project activity instance both have the specific meanings that are set out in VCS document *Program Definitions*.

Baseline Scenario and Additionality

- 3.4.2** Grouped projects shall have one or more clearly defined geographic areas within which project activity instances may be developed. Such geographic areas shall be defined using geodetic polygons as set out in Section 3.10 below.
- 3.4.3** Determination of baseline scenario and demonstration of additionality are based upon the initial project activity instances. The initial project activity instances are those that are included in the project description at validation and shall include all project activity instances currently implemented on the issue date of the project description. The initial project activity instances may

also include any planned instances of the project activity that have been planned and developed to a sufficient level of detail to enable their assessment at validation. Geographic areas with no initial project activity instances shall not be included in the project unless it can be demonstrated that such areas are subject to the same (or at least as conservative) baseline scenario and rationale for the demonstration of additionality as a geographic area that does include initial project activity instances.

- 3.4.4** As with non-grouped projects, grouped projects may incorporate multiple project activities (see Section 3.2 for more information on multiple project activities). Where a grouped project includes multiple project activities, the project description shall designate which project activities may occur in each geographic area.
- 3.4.5** The baseline scenario for a project activity shall be determined for each designated geographic area, in accordance with the methodology applied to the project. Where a single baseline scenario cannot be determined for a project activity over the entirety of a geographic area, the geographic area shall be redefined or divided such that a single baseline scenario can be determined for the revised geographic area or areas.
- 3.4.6** The additionality of the initial project activity instances shall be demonstrated for each designated geographic area, in accordance with the methodology applied to the project. Where the additionality of the initial project activity instances within a particular geographic area cannot be demonstrated for the entirety of that geographic area, the geographic area shall be redefined or divided such that the additionality of the instances occurring in the revised geographic area or areas can be demonstrated.
- 3.4.7** Where factors relevant to the determination of the baseline scenario or demonstration of additionality require assessment across a given area, the area shall be, at a minimum, the grouped project geographic area. Examples of such factors include, inter alia, common practice; laws, statutes, regulatory frameworks or policies relevant to demonstration of regulatory surplus; determination of regional grid emission factors; and historical deforestation and degradation rates.

Capacity Limits

- 3.4.8** Where a capacity limit applies to a project activity included in the project, no project activity instance shall exceed such limit. Further, no single cluster of project activity instances shall exceed the capacity limit, determined as follows:
- 1) Each project activity instance that exceeds one percent of the capacity limit shall be identified.
 - 2) Such instances shall be divided into clusters, whereby each cluster is comprised of any system of instances such that each instance is within one kilometer of at least one other instance in the cluster. Instances that are not within one kilometer of any other instance shall not be assigned to clusters.

- 3) None of the clusters shall exceed the capacity limit and no further project activity instances shall be added to the project that would cause any of the clusters to exceed the capacity limit.

Eligibility Criteria

3.4.9 Grouped projects shall include one or more sets of eligibility criteria for the inclusion of new project activity instances. At least one set of eligibility criteria for the inclusion of new project activity instances shall be provided for each combination of project activity and geographic area specified in the project description. A set of eligibility criteria shall ensure that new project activity instances:

- 1) Meet the applicability conditions set out in the methodology applied to the project.
- 2) Use the technologies or measures specified in the project description.
- 3) Apply the technologies or measures in the same manner as specified in the project description.
- 4) Are subject to the baseline scenario determined in the project description for the specified project activity and geographic area.
- 5) Have characteristics with respect to additionality that are consistent with the initial instances for the specified project activity and geographic area. For example, the new project activity instances have financial, technical and/or other parameters (such as the size/scale of the instances) consistent with the initial instances, or face the same investment, technological and/or other barriers as the initial instances.

Note – Where grouped projects include multiple baseline scenarios or demonstrations of additionality, such projects will require at least one set of eligibility criteria for each combination of baseline scenario and demonstration of additionality specified in the project description.

Inclusion of New Project Activity Instances

3.4.10 Grouped projects provide for the inclusion of new project activity instances subsequent to the initial validation of the project. New project activity instances shall:

- 1) Occur within one of the designated geographic areas specified in the project description.
- 2) Comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of eligibility criteria is insufficient.
- 3) Be included in the monitoring report with sufficient technical, financial, geographic and other relevant information to demonstrate compliance with the applicable set of eligibility criteria and enable sampling by the validation/verification body.
- 4) Be validated at the time of verification against the applicable set of eligibility criteria.
- 5) Have evidence of right of use, in respect of each project activity instance, held by the project proponent from the respective start date of each project activity instance (ie, the date upon which the project activity instance began reducing or removing GHG emissions).

- 6) Be eligible for crediting from the start date of the instance through to the end of the project crediting period (only). Note that where a new project activity instance starts in a previous verification period, no credit may be claimed for GHG emission reductions or removals generated during a previous verification period (as set out in Section 3.16.7) and new instances are eligible for crediting from the start of the next verification period.

Where inclusion of a new project activity instance necessitates the addition of a new project proponent to the project, such instances shall be included in the grouped project within two years of the project activity instance start date or, where the project activity is an AFOLU activity, within five years of the project activity instance start date. The procedure for adding new project proponents is set out in VCS document *Registration and Issuance Process*.

Project Description for Grouped Projects

3.4.11 A grouped project shall be described in a single project description, which shall contain the following (in addition to the content required for non-grouped projects):

- 1) A delineation of the geographic area(s) within which all project activity instances shall occur. Such area(s) shall be defined by geodetic polygons as set out in Section 3.10 below.
- 2) One or more determinations of the baseline for the project activity in accordance with the requirements of the methodology applied to the project.
- 3) One or more demonstrations of additionality for the project activity in accordance with the requirements of the methodology applied to the project.
- 4) One or more sets of eligibility criteria for the inclusion of new project activity instances at subsequent verification events.
- 5) A description of the central GHG information system and controls associated with the project and its monitoring.

Note – Where the project includes more than one project activity, the above requirements shall be addressed separately for each project activity, except for the delineation of geographic areas and the description of the central GHG information system and controls, which shall be addressed for the project as a whole.

3.5 METHODOLOGY DEVIATIONS

3.5.1 Deviations from the applied methodology are permitted where they represent a deviation from the criteria and procedures relating to monitoring or measurement set out in the methodology (ie, deviations are permitted where they relate to data and parameters available at validation, data and parameters monitored, or the monitoring plan). Methodology deviations shall not negatively impact the conservativeness of the quantification of GHG emission reductions or removals, except where they result in increased accuracy of such quantification. Deviations relating to any other part of the methodology shall not be permitted.

- 3.5.2** Methodology deviations shall be permitted at validation or verification and their consequences shall be reported in the validation or verification report, as applicable, and all subsequent verification reports. Methodology deviations are not considered to be precedent setting.

3.6 PROJECT DESCRIPTION DEVIATIONS

- 3.6.1** Deviations from the project description are permitted at verification. The procedures for documenting the deviation depend on whether the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario. Interpretation of whether the deviation impacts any of these shall be determined consistent with the CDM *Guidelines on assessment of different types of changes from the project activity as described in the registered PDD*, mutatis mutandis. The procedures are as follows:

- 1) Where the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario, the deviation shall be described and justified in a revised version of the project description. This shall include a description of when the changes occurred, the reasons for the changes and how the changes impact the applicability of the methodology, additionality and/or the appropriateness of the baseline scenario. An example of such a deviation is a change in project capacity where a different baseline scenario would be more plausible, the applied methodology would no longer be applicable, or there would be a significant impact on the investment analysis used by the project to demonstrate additionality. Other examples include changes to the project that might have similar impacts such as the addition of new carbon pools or new types of project activities.
- 2) Where the deviation does not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology, the deviation shall be described and justified in the monitoring report. This shall include a description of when the changes occurred and the reasons for the changes. The deviation shall also be described in all subsequent monitoring reports. Examples of such deviations include changes in the procedures for measurement and monitoring, or project design changes that do not have an impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

Note that project proponents may apply project description deviations for the purpose of switching to the latest version of the methodology, or switching to a different methodology. For example, a project proponent may want to switch to the latest version of a methodology where such version includes additional types of carbon pools or project activities.

- 3.6.2** The deviation shall be assessed by a validation/verification body and the process, findings and conclusions shall be reported in the verification report. The assessment shall determine whether the deviation is appropriately described and justified, and whether the project remains in compliance with the VCS rules. The deviation shall also be reported on in all subsequent verification reports. Project description deviations are not considered to be precedent setting.

- 3.6.3** The validation/verification body assessing the project description deviation shall be accredited for the validation, recognizing that assessment of project description deviations is a validation activity, as further set out in the *VCS Program Guide*.

3.7 PROJECT START DATE

- 3.7.1** The project start date is the date on which the project began generating GHG emission reductions or removals (see VCS document *AFOLU Requirements* for further specification for AFOLU projects). The rules and requirements on project start date, as well as validation and verification dates, are set out in the sections below. For projects registered under both the VCS Program and an approved GHG program, further specification with respect to the validation deadline is set out in Sections 3.11.8 and 3.11.9.

Note – The rules and requirements in relation to project start date (as well as validation and verification dates) under VCS Version 1 are different from *VCS 2007*, *2007.1* and *VCS Version 3*, and are provided in VCS document *Registration and Issuance Process*.

Non-AFOLU

- 3.7.2** Non-AFOLU projects shall complete validation within two years of the project start date. Additional time is granted for non-AFOLU projects to complete validation where they are applying a new VCS methodology. Specifically, projects using a new VCS methodology and completing validation within two years of the approval of the methodology by the VCSA may complete validation within four years of the project start date. Note that *new VCS methodology* in this context refers to both newly issued VCS methodologies and newly issued VCS revisions to approved GHG program methodologies. The grace period does not apply in relation to any subsequent versions of such new methodologies and new methodology revisions that may be issued.

AFOLU

- 3.7.3** AFOLU projects with a project start date on or after 8 March 2008 shall complete validation within five years of the project start date.
- 3.7.4** AFOLU projects with a project start date on or after 1 January 2002 and before 8 March 2008 shall complete validation before 8 March 2013.
- 3.7.5** For AFOLU projects with a project start date before 1 January 2002, the following applies:
- 1) Validation and verification shall be completed by 1 October 2011. However, additional time is granted for AFOLU projects with a project start date before 1 January 2002 to complete validation and verification where they are applying a new VCS methodology. Specifically, projects using a new VCS methodology shall complete validation and verification within one year of the approval of the methodology, and no later than 1 October 2012. *New VCS methodology* in this context has the same meaning as set out in Section 3.7.2.

- 2) It shall be demonstrated that the project was designed and implemented as a GHG project from its inception. Evidence may include minutes and/or notes related to Board decisions to undertake the project as a GHG project, or other evidence of real actions to undertake the project as a GHG project such as relevant contracts with consultants, documentation related to the sale of GHG credits or contracts with validation/verification bodies.
- 3) It shall be demonstrated that the project, prior to 1 January 2002, applied an externally reviewed methodology and engaged independent carbon expert(s) to assess and quantify the project's baseline scenario and net GHG emissions reductions or removals.

3.8 PROJECT CREDITING PERIOD

- 3.8.1** For non-AFOLU projects and ALM projects focusing exclusively on reducing N₂O, CH₄ and/or fossil-derived CO₂ emissions, the project crediting period shall be a maximum of ten years which may be renewed at most twice. For all other AFOLU projects other than such ALM projects, the project crediting period shall be a minimum of 20 years up to a maximum of 100 years, which may be renewed at most four times with a total project crediting period not to exceed 100 years. Where projects fail to renew the project crediting period, the project crediting period shall end and the project shall be ineligible for further crediting.
- 3.8.2** The earliest project crediting period start date for AFOLU projects shall be 1 January 2002.
- 3.8.3** Projects registered under other GHG programs are not eligible for VCU issuance beyond the end of the total project crediting period under those programs. For example, a CDM project with a seven year twice renewable project crediting period is not eligible for VCU issuance beyond the end of those 21 years. Where projects have been registered under more than one other GHG program, they are not eligible for VCU issuance after the date that is the earliest end date of all applicable project crediting periods.
- 3.8.4** Project crediting periods under the VCS Program shall be renewed as set out in Section 3.8.5.

Renewal of Project Crediting Period

- 3.8.5** The following shall apply with respect to the renewal of the project crediting period under the VCS Program:
- 1) A full reassessment of additionality is not required when renewing the project crediting period. However, regulatory surplus shall be demonstrated in accordance with Section 4.6.3) and the project description shall be updated accordingly.
 - 2) The validity of the original baseline scenario shall be demonstrated, or where invalid a new baseline scenario shall be determined, when renewing the project crediting period, as follows:
 - a) The validity of the original baseline scenario shall be assessed. Such assessment shall include an evaluation of the impact of new relevant national and/or sectoral policies and circumstances on the validity of the baseline scenario.

- b) Where it is determined that the original baseline scenario is still valid, the GHG emissions associated with the original baseline scenario shall be reassessed using the latest version of the *CDM Tool to assess the validity of the original/ current baseline and to update the baseline at the renewal of a crediting period*.
 - c) Where it is determined that the original baseline scenario is no longer valid, the current baseline scenario shall be established in accordance with the VCS rules.
 - d) The project description, containing updated information with respect to the baseline, the estimated GHG emission reductions or removals and the monitoring plan, shall be submitted for validation. Such updates shall be based upon the latest approved version of the methodology or its replacement. Where the project does not meet the requirements of the latest approved version of the methodology or its replacement, the project proponent shall select another applicable approved methodology (which may be a new methodology or methodology revision it has had approved via the methodology approval process), or shall apply a methodology deviation (where a methodology deviation is appropriate). Failing this, the project shall not be eligible for renewal of its project crediting period.
- 3) The updated project description shall be validated in accordance with the VCS rules. In addition, the project shall be validated against the (current) scope of the VCS. Such validation report shall be issued within two years of the end of the (previous) project crediting period. Additional time is granted for projects to complete such validation where they are switching to a new VCS methodology (*new VCS methodology* in this context has the same meaning as set out in Section 3.7.2) when renewing the project crediting period. Specifically, projects switching to a new VCS methodology and completing such validation within one year of the approval of the methodology by the VCSA may complete such validation within three years of the end of the (previous) project crediting period.

Note – The project crediting period under *VCS Version 1* shall be deemed as 10 years, and commences at the specific project crediting period start date. Note also, *VCS Version 1* allowed an earlier project start date than subsequent versions and such projects remain eligible for project crediting period renewal under *VCS Version 3*.

3.9 PROJECT SCALE

- 3.9.1** Projects are categorized by size according to their estimated average annual GHG emission reductions or removals, as set out below, and materiality requirements for validation and verification differ accordingly, as set out in Section 5.3.1:
- 1) Projects: Less than or equal to 300,000 tonnes of CO₂e per year.
 - 2) Large projects: Greater than 300,000 tonnes of CO₂e per year.
- 3.9.2** Where applying a methodology with scale and/or capacity limits, it shall be demonstrated that the project is not a fragmented part of a larger project or activity that would otherwise exceed such limits. The project shall be considered a fragmented part of a larger project if within one kilometer of the project boundary there exists another project where:

- 1) The project proponents for both projects are the same.
- 2) The sectoral scope and project activity for both projects are the same.
- 3) The other project has been registered under the VCS or another GHG program within the previous two years.

3.10 PROJECT LOCATION

3.10.1 Project location shall be specified in the project description as follows:

- 1) Project location for non-AFOLU projects shall be specified by a single geodetic coordinate. Where there are multiple project activity instances (see Section 3.3 for more information on multiple project activities), the following applies:
 - a) Where it is reasonable to do so, a geodetic coordinate shall be provided for each instance and provided in a KML file; or
 - b) Where there are a large number project activity instances (eg, cookstoves or energy efficient light bulbs), at least one geodetic coordinate shall be provided, together with sufficient additional geographic information (with respect to the location of the instances) to enable sampling by the validation/verification body.
- 2) Project location for grouped projects shall be specified using geodetic polygons to delineate the project's geographic area or areas (see Section 3.4.2 for further information on geographic areas for grouped projects) and provided in a KML file.
- 3) Project location for AFOLU projects shall be specified using geodetic polygons to delineate the geographic area of each AFOLU project activity and provided in a KML file.

3.11 OWNERSHIP AND OTHER PROGRAMS

Right of Use

3.11.1 The project description shall be accompanied by documentary evidence establishing conclusively one or more of the following rights of use (see VCS document *Program Definitions* for definition of right of use) accorded to the project proponent(s):

- 1) A right of use arising or granted under statute, regulation or decree by a competent authority.
- 2) A right of use arising under law.
- 3) A right of use arising by virtue of a statutory, property or contractual right in the plant, equipment or process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or removals and the project proponent has not been divested of such right of use).
- 4) A right of use arising by virtue of a statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions and/or removals (where such right includes the right of use of such reductions or

removals and the project proponent has not been divested of such right of use).

- 5) An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the plant, equipment or process that generates GHG emission reductions and/or removals which vests the right of use in the project proponent.
- 6) An enforceable and irrevocable agreement with the holder of the statutory, property or contractual right in the land, vegetation or conservational or management process that generates GHG emission reductions or removals which vests the right of use in the project proponent.
- 7) A right of use arising from the implementation¹ or enforcement of laws, statutes or regulatory frameworks that require activities be undertaken or incentivize activities that generate GHG emission reductions or removals.

Emission Trading Programs and Other Binding Limits

3.11.2 Where projects reduce GHG emissions from activities that are included in an emissions trading program or any other mechanism that includes GHG allowance trading, evidence shall be provided that the GHG emission reductions or removals generated by the project have not and will not be otherwise counted or used under the program or mechanism. Such evidence may include:

- 1) A letter from the program operator, designated national authority or other relevant regulatory 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.
- 2) Evidence of the 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.
- 3) Evidence from the program operator, designated national authority or other relevant regulatory authority stating that the specific GHG emission reductions or removals generated by the project or type of project are not within the scope of the program or national cap.

Other Forms of Environmental Credit

3.11.3 Where projects have sought or received another form of GHG-related environmental credit, such as renewable energy certificates, the following information shall be provided to the validation/verification body:

- 1) Name and contact information of the relevant environmental credit program.

¹ Implemented in the context of this paragraph means enacted or introduced, consistent with use of the term under the CDM rules on so-called Type E+ and Type E- policies.

- 2) Details of the project as registered under the environmental credit program (eg, project title and identification number as listed under the program).
- 3) Monitoring periods for which GHG-related environmental credits were sought or received under the environmental credit program.
- 4) Details of all GHG-related environmental credits sought or received under the environmental credit program (eg, volumes and serial numbers).

3.11.4 Where projects are eligible to participate under one or more programs to create another form of GHG-related environmental credit, but are not currently doing so, a list of such programs shall be provided to the validation/verification body.

Note - The requirements set out in Section 3.11.3 above and this Section 3.11.4 do not apply to non-GHG related environmental credits, such as water or biodiversity credits.

Participation Under Other GHG Programs

3.11.5 Projects may be registered under both the VCS Program and either an approved GHG program or a GHG program that is not an approved GHG program. The rules and requirements set out in the sections below apply.

General Requirements

3.11.6 Project proponents shall not claim credit for the same GHG emission reduction or removal under the VCS Program and another GHG program. Projects issuing GHG credits under both the VCS Program and another GHG program shall also comply with the rules and requirements set out in VCS document *Registration and Issuance Process*.

3.11.7 Projects registered under other GHG programs are not eligible for VCU issuance beyond the end of the total project crediting period under those programs (see Section 3.8.3 for further information).

3.11.8 For projects validated under the CDM as a Program of Activities (PoA), each CDM Program Activity (CPA) shall be registered as a separate project accompanied by its associated Program of Activities Design Document. Each such project shall be validated in accordance with Section 3.11.9(1) below. The project start date for such projects is the date on which the first activity under the Program of Activities began reducing or removing GHG emissions. Where the project start date is before 8 March 2011, validation shall be completed within four years of the project start date; otherwise, validation shall be completed within two years of the project start date (in this case, validation refers to validation of the first CPA under the associated PoA).

Approved GHG Programs

3.11.9 The following applies with respect to projects registered under both the VCS Program and an approved GHG program:

- 1) For projects validated under the CDM, the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the *VCS Project Description Template* shall be completed. A validation/verification body shall undertake a validation of same, which shall be accompanied by a validation representation, to provide a gap validation for the project's compliance with the VCS rules.
- 2) For projects validated under any other approved GHG program, the cover page and sections of the *VCS Project Description Template* as specified on the VCS website shall be completed. A validation/verification body shall undertake a validation of same, which shall be accompanied by a validation representation, to provide a gap validation for the project's compliance with the VCS rules.
- 3) The approved GHG program validation (or verification, where the approved GHG program does not have a validation step) or VCS validation shall be completed within the relevant validation deadline as set out in Section 3.7. Validation (or verification) is deemed to have been completed when the validation (or verification) report that is submitted to the relevant program to request registration has been issued.
- 4) AFOLU projects shall comply with the additional requirements set out in VCS document *AFOLU Requirements*.

Other GHG Programs

3.11.10 Non-AFOLU projects may be registered under both the VCS Program and a GHG program that is not an approved GHG program where a validation or verification report has been issued under such program (by an entity approved under the program to issue such reports). For such projects, the following applies:

- 1) The project start date shall be on or after 19 November 2007.
- 2) A new *VCS Project Description Template* shall be completed (using a methodology eligible under the VCS Program) and a validation/verification body shall undertake a full validation of same in accordance with the VCS rules. The validation report shall be accompanied by a validation representation.

The validation or verification that is submitted to request registration under the other GHG program shall be completed within the relevant validation deadline set out in Section 3.7. Validation or verification is deemed to have been completed when the validation or verification report that is submitted to the other GHG program to request registration has been issued.

Projects Rejected by Other GHG Programs

3.11.11 Projects rejected by other GHG programs due to procedural or eligibility requirements can be considered under the VCS Program, but the following conditions shall be met:

- 1) The project description (where the other GHG program has rejected the project before VCS validation) or monitoring report (where the other GHG program has rejected the project after VCS validation) shall clearly state all GHG programs to which the project has applied for registration and the reason(s) for rejection. Such information shall not be deemed as commercially sensitive information.
- 2) The validation/verification body shall be provided with the rejection document(s), including any additional explanations.
- 3) The project shall be validated against the VCS rules. For projects where the other GHG program has rejected the project after VCS validation, this means a complete revalidation of the project against the VCS rules.

3.12 PROJECT BOUNDARY

3.12.1 The project boundary shall be described (using diagrams, as required) and GHG sources, sinks and reservoirs shall be identified and assessed in accordance with the methodology applied to the project. The project shall justify not selecting any relevant GHG source, sink and reservoirs.

3.13 BASELINE SCENARIO

3.13.1 The baseline scenario for the project shall be determined in accordance with the requirements set out in the methodology applied to the project, and the choice of baseline scenario shall be justified.

3.13.2 Equivalence in type and level of activity of products or services provided by the project and the baseline scenario shall be demonstrated and, where appropriate, any significant differences between the project and the baseline scenario shall be explained.

3.13.3 In developing the baseline scenario, assumptions, values and procedures shall be selected that help ensure that net GHG emission reductions and removals are not overestimated.

3.14 ADDITIONALITY

3.14.1 Additionality shall be demonstrated and assessed in accordance with the requirements set out in the methodology applied to the project.

The only exception to this is in respect of activity methods approved under the VCS Program (see Section 4.1.11 for further information on activity methods). Where a VCS module using an activity method is applicable to the project, additionality may be demonstrated using the module in substitution of the additionality requirements set out in the methodology. For example, if a module

uses an activity method (ie, positive list) to deem a project activity additional, the project proponent does not have to follow the additionality requirements in the methodology applied to the project and may instead demonstrate additionality by demonstrating that it meets the applicability conditions and any other criteria of the activity method. Note that only modules may be used in this way. Where a methodology contains an activity method for additionality, the additionality procedures may not be applied in conjunction with a different methodology.

3.15 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

3.15.1 GHG emissions and/or removals shall be estimated for each GHG source, sink and/or reservoir relevant for the project (including leakage) and the baseline scenario.

3.15.2 The net GHG emission reductions and removals generated by the project shall be quantified.

3.16 MONITORING

Data and Parameters

3.16.1 Data and parameters used for the quantification of GHG emission reductions and/or removals shall be provided in accordance with the methodology.

3.16.2 Quality management procedures to manage data and information shall be applied and established. Where applicable, procedures to account for uncertainty in data and parameters shall be applied in accordance with the requirements set out in the methodology.

Monitoring Plan

3.16.3 The project proponent shall establish a GHG information system for obtaining, recording, compiling and analyzing data and information important for quantifying and reporting GHG emissions and/or removals relevant for the project (including leakage) and baseline scenario.

3.16.4 A monitoring plan for the project that includes roles and responsibilities shall be established.

3.16.5 Where measurement and monitoring equipment is used, the project proponent shall ensure the equipment is calibrated according to the equipment's specifications and/or relevant national or international standards.

Monitoring Report

3.16.6 The monitoring report describes all the data and information related to the monitoring of GHG emission reductions or removals. The project proponent shall use the *VCS Monitoring Report Template* and adhere to all instructional text within the template.

- 3.16.7** The verification period of the monitoring report shall be a distinct time period that does not overlap with previous verification periods. Projects shall not be eligible for crediting of GHG emission reductions generated in previous verification periods.
- 3.16.8** Where a monitoring report and associated verification report divide a verification period into vintages, separate VCU issuance records in accordance with vintage periods may be issued, as set out in VCS document *Registration and Issuance Process*.

3.17 RECORDS AND INFORMATION

Records Relating to the Project

- 3.17.1** The project proponent shall ensure that all documents and records are kept in a secure and retrievable manner for at least two years after the end of the project crediting period.

Information for the Validation/Verification Body

- 3.17.2** For validation, the project proponent shall make available to the validation/verification body the project description, evidence of right of use and any requested supporting information and data needed to support statements and data in the project description and evidence of right of use.
- 3.17.3** For verification, the project proponent shall make available to the validation/verification body the project description, validation report, monitoring report applicable to the monitoring period and any requested supporting information and data needed to evidence statements and data in the monitoring report.

3.18 PROJECT DESCRIPTION

- 3.18.1** The project description describes the project's GHG emission reduction or removal activities. The project proponent shall use the *VCS Project Description Template* (or approved GHG program project description template where the project is requesting registration under an approved GHG program) and adhere to all instructional text within the template.
- 3.18.2** All information in the project documents shall be presumed to be available for public review, though commercially sensitive information may be protected, as set out in VCS document *Registration and Issuance Process*, where it can be demonstrated that such information is commercially sensitive. The validation/verification body shall check that any information designated by the project proponent as commercially sensitive meets the VCS Program definition of commercially sensitive information. Information in the project documents related to the determination of the baseline scenario, demonstration of additionality, and estimation and monitoring of GHG emission reductions and removals shall not be considered to be commercially sensitive and shall be provided in the public versions of the project documents.

4 | Methodology Requirements

4.1 GENERAL REQUIREMENTS

General

- 4.1.1** The list of methodologies approved under the VCS Program, together with their respective validity periods, is available on the VCS website. All new methodologies applying for approval under the VCS Program shall use the *VCS Methodology Template*, comply with the requirements set out in this Section 4 and any other applicable requirements set out in the VCS rules, and be approved via the methodology approval process. AFOLU methodologies shall meet the rules and requirements set out in VCS document *AFOLU Requirements*. Ozone-depleting substances methodologies shall meet the rules and requirements set out in VCS document *ODS Requirements*.
- 4.1.2** 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.
- 4.1.3** Methodologies may employ a modular approach in which a framework document provides the structure of the methodology and separate modules and/or tools are used to perform specific methodological tasks. Such methodologies shall use the *VCS Methodology Template* for the framework document and the *VCS Module Template* for the modules and tools. The framework document shall clearly state how the modules and/or tools are to be used within the context of the methodology.
- 4.1.4** Methodology elements shall be guided by the principles set out in Section 2.4.1. They shall clearly state the assumptions, parameters and procedures that have significant uncertainty, and describe how such uncertainty shall be addressed. Where applicable, methodology elements shall provide a means to estimate a 90 or 95 percent confidence interval. Where a methodology applies a 90 percent confidence interval and the width of the confidence interval exceeds 20 percent of the estimated value or where a methodology applies a 95 percent confidence interval and the width of the confidence interval exceeds 30 percent of the estimated value, an appropriate confidence deduction shall be applied. Methods used for estimating uncertainty shall be based on recognized statistical approaches such as those described in the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*. Confidence deductions shall be applied using conservative factors such as those specified in the CDM Meth Panel guidance on addressing uncertainty in its Thirty Second Meeting Report, Annex 14.

- 4.1.5** New methodologies shall not be developed where an existing methodology could reasonably be revised (ie, developed as a methodology revision) to meet the objective of the proposed methodology, as set out in VCS document *Methodology Approval Process*.
- 4.1.6** Where methodologies mandate the use of specific models to simulate processes that generate GHG emissions (ie, the project proponent is not permitted to use other models), the following applies, given the note below:
- 1) Models shall be publicly available, though not necessarily free of charge, from a reputable and recognized source (eg, the model developer's website, IPCC or government agency).
 - 2) Model parameters shall be determined based upon studies by appropriately qualified experts that identify the parameters as important drivers of the model output variable(s).
 - 3) Models shall have been appropriately reviewed and tested (eg, ground-truthed using empirical data or results compared against results of similar models) by a recognized, competent organization, or an appropriate peer review group.
 - 4) All plausible sources of model uncertainty, such as structural uncertainty or parameter uncertainty, shall be assessed using recognized statistical approaches such as those described in *2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1, Chapter 3*.
 - 5) Models shall have comprehensive and appropriate requirements for estimating uncertainty in keeping with IPCC or other appropriate guidance, and the model shall be calibrated by parameters such as geographic location and local climate data.
 - 6) Models shall apply conservative factors to discount for model uncertainty (in accordance with the requirements set out in Section 4.1.4), and shall use conservative assumptions and parameters that are likely to underestimate, rather than overestimate, the GHG emission reductions or removals.

Note – The criteria set out in (2)-(6) above are targeted at more complex models. For simple models, certain of these criteria may not be appropriate, or necessary to the integrity of the methodology. Such criteria may be disregarded, though the onus is upon the methodology developer to demonstrate that they are not appropriate or necessary.

- 4.1.7** Where methodologies use default factors and standards to ascertain GHG emission data and any supporting data for establishing baseline scenarios and demonstrating additionality, the following applies:
- 1) Where the methodology uses third party default factors and/or standards, such default factors and standards shall meet with the requirements for data set out in Section 4.5.6, *mutatis mutandis*.
 - 2) Where the methodology itself establishes a default factor, the following applies:
 - a) The data used to establish the default factor shall comply with the requirements for data set out in Section 4.5.6, *mutatis mutandis*.

- b) The methodology shall describe in detail the study or other method used to establish the default factor.
 - c) The methodology developer shall identify default factors which may become out of date (ie, those default factors that do not represent physical constants or otherwise would not be expected to change significantly over time). Such default factors are subject to periodic re-assessment, as set out in VCS document *Methodology Approval Process*.
- 3) Where methodologies allow project proponents to establish a project-specific factor, the methodology shall provide a procedure for establishing such factors.

Note – Methodologies may use deemed savings factors which, as set out in the definition of deemed savings factor, are a specific type of default factor.

- 4.1.8** Where proxies are used, it shall be demonstrated that they are strongly correlated with the value of interest and that they can serve as an equivalent or better method (eg, in terms of reliability, consistency or practicality) to determine the value of interest than direct measurement of the value itself.
- 4.1.9** Methodologies shall use a standardized method (ie, performance method or activity method) or a project method to determine additionality and/or the crediting baseline, and shall state which type of method is used for each. A project method is a methodological approach that uses a project-specific approach for the determination of additionality and/or crediting baseline. Standardized methods are further described in Section 4.1.11 and additional guidance is available in VCS document *Guidance for Standardized Methods*. This guidance document provides additional information to aid the interpretation of the VCS rules on standardized methods and should be read before developing or assessing such methods. Although the guidance document does not form part of the VCS rules, interpretation of the rules shall be consistent with the guidance document.
- 4.1.10** Methodologies may use any combination of project, performance or activity methods for determining additionality and the crediting baseline. However, methodologies shall provide only one method (ie, a project method or performance method) for determining the crediting baseline (ie, methodologies shall not provide the option of using either a project method or a performance method for the crediting baseline).

Standardized Methods

- 4.1.11** Standardized methods are methodological approaches that standardize the determination of additionality and/or the crediting baseline for a given class of project activity, with the objective of streamlining the development and assessment process for individual projects. Additionality and/or the crediting baseline are determined for the class of project activity, and qualifying conditions and criteria are set out in the methodology. Individual projects need only meet the conditions and apply the pre-defined criteria set out in the standardized method, obviating the need for each project to determine additionality and/or the crediting baseline via project-specific approaches and analyses.

The VCS defines two types of standardized methods:

- 1) **Performance methods:** These methods establish performance benchmark metrics for determining additionality and/or the crediting baseline. Projects that meet or exceed a pre-determined level of the metric may be deemed as additional and a pre-determined level of the metric may serve as the crediting baseline.
- 2) **Activity methods:** These methods pre-determine additionality for given classes of project activities using a positive list. Projects that implement activities on the positive list are automatically deemed as additional and do not otherwise need to demonstrate additionality. One of three options (namely, activity penetration, financial viability or revenue streams) is used to qualify the project activity for the positive list, as set out in Section 4.6.9.

Note – There is some overlap between performance and activity methods with respect to concepts, objectives and outcomes, and methodologies may use any combination of methods (performance, activity, and project) for determining additionality and the crediting baseline as set out in Section 4.1.10. However, both performance and activity methods are sufficiently distinct, and this document sets out the rules and requirements for each method separately.

- 4.1.12** Methodologies shall include sufficient information and evidence to allow the reader to reach the same assessment conclusion on the appropriateness and rigor of the standardized method reached by the two validation/verification bodies in the methodology approval process, noting that the confidentiality of proprietary data may be protected as set out in Section 4.5.6(5). To aid the readability and clarity of methodologies, such information and evidence may be included in appendices to methodology documents rather than in the body of the documents themselves. Following their initial approval, methodologies are subject to periodic re-assessment, as set out in VCS document *Methodology Approval Process*.

Performance Methods

- 4.1.13** All new performance methods shall be prepared using the *VCS Methodology Template*. A performance method is an integral part of a methodology and therefore it cannot be developed and approved as a separate module that is then applied by projects in conjunction with other methodologies.
- 4.1.14** The methodology may use a performance method for determining additionality only, for determining additionality and the crediting baseline, or for determining the crediting baseline only. The level of the performance benchmark metric for determining additionality and for the crediting baseline may be the same, or each may be different. Where they are different, the level for determining additionality shall be more stringent than the level of the crediting baseline.
- 4.1.15** Where the methodology uses a performance method for determining both additionality and the crediting baseline, the methodology shall list all methodologies that use a project method for determining the crediting baseline that are applicable to similar project activities and are approved

under the VCS Program or an approved GHG program. The purpose of this requirement is to facilitate the transition to standardized methods, as further set out in Section 3.1.6.

- 4.1.16** The performance benchmark metric shall be specified in terms of tonnes of CO₂e per unit of output (ie, GHG emissions per unit of product or service), tonnes of CO₂e per unit of input (eg, GHG emissions per unit of input per unit of land area) or as a sequestration metric (eg, carbon stock per unit of land area), as appropriate to the project activity applicable under the methodology. This may represent tonnes of CO₂e reduced or tonnes of CO₂e sequestered. An input metric shall only be used where an output metric is not practicable (eg, the corresponding output metric is subject to influences outside the control of the project proponent) and leakage shall be addressed. The unit shall be unambiguously defined to allow a consistent comparison of project performance with the performance benchmark. The *GHG Protocol for Project Accounting*, Chapter 7 (WRI-WBCSD) provides some examples of products and services that may serve as candidates for performance benchmark metrics. Note that proxies for the performance benchmark metric may be used for determining additionality, as set out in Section 4.6.7.
- 4.1.17** It is recognized that an overly stringent level for the performance benchmark metric used for additionality may exclude additional projects (false negatives) while an overly lenient level may allow in non-additional projects (false positives). Similarly, an overly stringent level of the performance benchmark metric used for the crediting baseline may result in too little incentive for project proponents while an overly lenient level may allow the crediting of non-additional GHG emission reductions and removals. In order to address these considerations, the following shall apply with respect to setting the level(s) of the performance benchmark metric:
- 1) The methodology shall provide a description and analysis of the current distribution of performance within the sector as such performance relates to the applicability of the methodology or each performance benchmark (see Section 4.3.5 for further information on applicability of methodologies and performance benchmarks). The methodology shall also provide an overview of the technologies and/or measures available for improving performance within the sector, though an exhaustive list is not required recognizing that performance methods may be somewhat agnostic with respect to the technologies and/or measures implemented by projects.
 - 2) The methodology shall discuss and evaluate the tradeoff between false negatives and false positives and shall describe objectively and transparently the evidence used (including reference to primary and secondary data sources), experts consulted, assumptions made, and analysis (including numerical analysis) and process undertaken in determining the selected level(s) of the performance benchmark metric (noting that expert consultation is a key part of this process, as set out below). The selected level(s) shall not systematically overestimate GHG emission reductions or removals.
 - 3) The process of determining the level(s) of the performance benchmark metric shall include and be informed by an expert consultation process, undertaken by the methodology developer as follows:

- a) The objective of the expert consultation shall be to engage and solicit input from technical experts on the appropriateness of the proposed level(s) of the performance benchmark metric to ensuring environmental integrity and provision of sufficient financial incentive to potential projects. Technical experts are persons who have specific knowledge or expertise relevant to the methodology and performance benchmark metric.
- b) The methodology developer shall ensure that a representative group of experts participates in the consultation, including, but not limited to, representation from industry, environmental non-governmental organizations, and government or other regulatory bodies. Where a diverse range of views can be expected with regard to the appropriate level of the performance benchmark metric, experts representing the range of views shall participate in the consultation. Participation by experts shall be pro-actively sought and facilitated. Consultation that does not involve a representative group of experts shall be deemed insufficient.
- c) Experts shall be provided, under appropriate confidentiality agreements (as necessary), with sufficient background and technical information about the methodology and its context to allow meaningful participation in the consultation. The consultation process shall use meetings, conference calls and other appropriate methods to allow all experts to provide comments and exchange views in an open, fair and transparent manner.
- d) A report on the expert consultation process and outcome shall be prepared and submitted to the VCSA when the methodology is submitted under the methodology approval process. This may be included as an annex to the methodology, to be removed from any final approved version of the methodology. The report shall provide a summary of expert views, and shall demonstrate how the above requirements have been met and how expert views were taken due account of (ie, how expert views have affected the final level(s) of the performance benchmark metric in the draft methodology).

Note that expert consultation only needs to be undertaken by the methodology developer with respect to the level of the performance benchmark metric, since the methodology is also subject to public stakeholder consultation as part of the VCS methodology approval process.

4.1.18 Where there is heterogeneity of performance (measured in terms of the performance benchmark metric) that may be practicably achieved by individual projects, multiple benchmarks or correction factors may be required. Multiple benchmarks or correction factors shall be established under the following circumstances:

- 1) The project activity includes technologies and/or measures which may be implemented at both greenfield and brownfield sites and the performance (measured in terms of the performance benchmark metric) that may be practicably achieved at each is substantially different.
- 2) The methodology encompasses both larger and smaller scale project activities and the performance (measured in terms of the performance benchmark metric) that may be practicably achieved in each case is substantially different.

- 3) Any other circumstances related to the baseline scenario or project activity, such as plant age, raw material quality and climatic circumstances, that lead to heterogeneity of performance (measured in terms of the performance benchmark metric) that may be practicably achieved by individual projects.

Activity Methods

- 4.1.19** The activity method shall be prepared using the *VCS Module Template*, or, where a new methodology is being developed, may be written directly into the methodology (ie, a positive list may be prepared and approved as a standalone additionality test that may be used in conjunction with applicable methodologies, or may be prepared as a direct part of a new methodology, in which case it may not be used in conjunction with other methodologies). To aid the readability of this document, it is assumed that the activity method is being written directly into the methodology, so readers should take references to *methodology* to mean *methodology or module*, as appropriate.
- 4.1.20** The activity method shall set out, using the specification of the project activity under the applicability conditions, a positive list of project activities that are deemed as additional under the activity method (see Section 4.3 for further information on providing specification of project activities). All such project activities are deemed as additional under the activity method.

4.2 METHODOLOGY REVISIONS

General

- 4.2.1** Methodology revisions are appropriate where a project activity is broadly similar to the project activities eligible under an existing methodology and such project activity can be included through reasonable changes to that methodology. Methodology revisions are also appropriate where an existing methodology can be materially improved. Materially improving a methodology involves comparing the existing and proposed methodologies so as to show that the changes will deliver material improvements that will result in greater accuracy of measurement of GHG emissions reductions or removals, improved conservatism and/or reduced transaction costs.
- 4.2.2** Methodology revisions shall be prepared using the *VCS Methodology Template* and shall be managed via the methodology approval process. They may be prepared and submitted to the methodology approval process by the developer of the original methodology or any other entity.
- 4.2.3** The VCS Program distinguishes between revisions to VCS methodologies and revisions to approved GHG program methodologies. The requirements for the development and assessment of each are set out in VCS document *Methodology Approval Process*.

Standardized Methods

- 4.2.4** Standardized methods approved under the VCS Program shall be periodically reviewed and may require revision, as set out in VCS document *Methodology Approval Process*.

Activity Methods

- 4.2.5** Where an activity method uses the activity penetration option and the level of activity penetration has risen (since initial approval) to exceed the five-percent threshold level, the activity method may not be revised to use the financial viability or revenue streams options.

4.3 APPLICABILITY CONDITIONS

General

- 4.3.1** The methodology shall use applicability conditions to specify the project activities to which it applies and shall establish criteria that describe the conditions under which the methodology can (and cannot, if appropriate) be applied. Any applicability conditions set out in tools or modules used by the methodology shall also apply.

Standardized Methods

- 4.3.2** Precise specification of the project activity is required to provide a carefully targeted standardized method with an appropriate level of aggregation with respect to the project activity. The applicability conditions shall be specified accordingly and shall cause to be excluded from the methodology, to the extent practicable, those classes of project activities that it can be reasonably assumed will be implemented without the intervention created by the carbon market. For example, the methodology may exclude facilities larger than a specific size or capacity, constructed before a given date or that have regular access to lower cost fuels than most facilities. The methodology shall demonstrate how the applicability conditions achieve such objective with respect to free-riders.

Performance Methods

- 4.3.3** The applicability conditions shall limit the applicability of the methodology to project activities whose performance can be described in terms of the performance benchmark metric set out in the methodology.
- 4.3.4** Where the methodology uses a performance method for determining additionality, the applicability conditions shall ensure that the project implements technologies and/or measures that cause substantial performance improvement relative to the crediting baseline and what is achievable within the sector, and the methodology shall explicitly specify such technologies and/or measures (or examples thereof). Note that the implementation date of such technologies and/or measures is the project start date and the VCS rules with respect to project start date

apply (ie, implementation will need to have occurred within timeframes permitted under the VCS rules on project start date). Activities that have not implemented any such technologies and/or measures, or that have implemented them on a date that is earlier than that permitted under the VCS rules on project start date, shall be excluded from the methodology.

- 4.3.5** The applicability conditions shall establish the scope of validity of the methodology, and where multiple benchmarks are established, each performance benchmark, including the geographic scope. In establishing the scope of validity of the methodology or each performance benchmark, the methodology shall clearly demonstrate that there is similarity across the sub-areas of the geographic scope in factors such as socio-economic conditions, climatic conditions, energy prices, raw material availability and electricity grid emission factors, as such factors relate to the baseline scenario and additionality, noting that variation is permitted where correction factors address such variation as set out in Section 4.1.18.

It may be necessary to stratify and establish multiple performance benchmarks, or to limit the applicability of the methodology, to comply with this requirement.

- 4.3.6** The applicability of the methodology or a performance benchmark shall be limited to the geographic area for which data are available, or it shall be demonstrated that data from one geographic area are representative of another or that it is conservative to apply data from one geographic area to another. Representativeness shall be determined in terms of the similarity of the geographic areas considering such factors as those set out in Section 4.3.5 above. Likewise, it shall be determined that it is conservative to apply data from one geographic area by considering the same factors. In determining whether two areas are sufficiently similar, or that it is conservative, to allow data to apply from one area to another, only factors related to the baseline scenario and additionality need to be considered.

Activity Methods

- 4.3.7** The applicability conditions specify the project activity and they shall therefore serve as the specification of the positive list (ie, all project activities that satisfy the applicability conditions are deemed as additional).
- 4.3.8** The methodology shall clearly specify the project activity in terms of a technology or measure and its context of application. A technology or measure encompasses the plant, equipment, process, management and conservation measure or other practice that directly or indirectly generates GHG emission reductions and/or removals. The context of application refers to the conditions or circumstances under which such technology or measure may be implemented.
- 4.3.9** The applicability conditions shall establish the scope of validity of the methodology, including the geographic scope. In establishing the scope of validity of the methodology, the methodology shall clearly demonstrate that there is similarity across the sub-areas of the geographic scope in factors such as socio-economic conditions, climatic conditions, energy prices, raw material availability and electricity grid emission factors, as such factors relate to the baseline scenario

and additionality, It may be necessary to limit the applicability of the methodology to comply with this requirement.

- 4.3.10** Where the activity method is set out as a separate module (ie, is not an integrated part of a methodology), the activity method may be applied to any methodology eligible under the VCS Program that permits the project activity specified in the module (see Section 3.14.1 for further details).

4.4 PROJECT BOUNDARY

General

- 4.4.1** The methodology shall establish criteria and procedures for describing the project boundary and identifying and assessing GHG sources, sinks and reservoirs relevant to the project and baseline scenarios. Justification for GHG sources, sinks and reservoirs included or excluded shall be provided.
- 4.4.2** In identifying GHG sources, sinks and reservoirs relevant to the project, the methodology shall set out criteria and procedures for identifying and assessing GHG sources, sinks and reservoirs that are controlled by the project proponent, related to the project or affected by the project (ie, leakage).
- 4.4.3** In identifying GHG sources, sinks and reservoirs relevant to the baseline scenario, the methodology shall:
- 1) Set out criteria and procedures used for identifying the GHG sources, sinks and reservoirs relevant for the project.
 - 2) Where necessary, explain and apply additional criteria for identifying relevant baseline GHG sources, sinks and reservoirs.
 - 3) Compare the GHG sources, sinks and reservoirs identified for the project with those identified in the baseline scenario, to ensure equivalency and consistency.

Standardized Methods

- 4.4.4** (No specific requirements)

4.5 BASELINE SCENARIO

General

- 4.5.1** Methodologies using a project method shall establish criteria and procedures for identifying alternative baseline scenarios and determining the most plausible scenario, taking into account the following:
- 1) The identified GHG sources, sinks and reservoirs.

- 2) Existing and alternative project types, activities and technologies providing equivalent type and level of activity of products or services to the project.
- 3) Data availability, reliability and limitations.
- 4) Other relevant information concerning present or future conditions, such as legislative, technical, economic, socio-cultural, environmental, geographic, site-specific and temporal assumptions or projections.

4.5.2 Methodologies using a standardized method for determining the crediting baseline shall describe (taking into account the factors set out Section 4.5.1 above), as far as is possible, the technologies or measures that represent the most plausible baseline scenario or the aggregated baseline scenario (see Section 4.5.4 for further information on aggregate baseline scenarios), though it is recognized that it may not be possible to specify precisely all technologies or measures given that the baseline may represent a variety of different technologies and measures.

Standardized Methods

4.5.3 Standardized methods shall be developed with the objective of predicting, as accurately as is practicable, the most plausible baseline scenario or aggregated baseline scenario. Notwithstanding this principle, it is recognized that standardized methods cannot perfectly capture the precise baseline behavior for all proposed projects eligible under a standardized method.

Performance Methods

4.5.4 The methodology shall identify alternative baseline scenarios and determine either the most plausible baseline scenario or an aggregate baseline scenario for the project activity. Aggregate baseline scenarios shall be determined by combining likely scenarios on a probabilistic (ie, likelihood) basis.

4.5.5 The performance benchmark shall be established based upon available technologies and/or current practices, and trends, within the sector. Where the analysis of trends shows a clear trend of improvement in the baseline scenario over time, the performance benchmark shall take account of the trend. This means that where the performance benchmark does not use a dataset that is updated at least annually, an autonomous improvement factor shall be used that provides a performance benchmark that tightens annually. Notwithstanding this requirement, methodologies may allow projects to use the level of the performance benchmark metric available at project validation for the duration of their project crediting periods (see also Section 4.5.7 below). Where the analysis of trends shows a trend of increasing GHG emissions or decreasing GHG removals in the baseline scenario over time, the performance benchmark shall not consider such trend.

4.5.6 Appropriate data sources for developing performance methods include economic and engineering analyses and models, peer-reviewed scientific literature, case studies, empirical data, and common practice data. The data and dataset derived from such data sources shall meet the

requirements below. The CDM *Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines* also provides useful related guidance.

- 1) Data collected directly from primary sources shall comply with relevant and appropriate standards, where available, for data collection and analysis, and be audited at an appropriate frequency by an appropriately qualified, independent organization.
- 2) Data collected from secondary sources shall be available from a recognized, credible source and must be reviewed for publication by an appropriately qualified, independent organization or appropriate peer review group, or be published by a government agency.
- 3) Data shall be from a time period that accurately reflects available technologies and/or current practice, and trends, within the sector. Selection of the appropriate temporal range shall be determined based on the guidance provided in the *GHG Protocol for Project Accounting*, Chapter 7 (WRI-WBCSD).
- 4) Where sampling is applied in data collection, the requirements set out in Section 4.1.4 shall be adhered to. The methodology developer shall demonstrate that sampling results provide an unbiased and reliable estimate of the true mean value (ie, the sampling does not systematically underestimate or overestimate the true mean value).
- 5) Data shall be publicly available or made publicly available. Proprietary data (eg, data pertaining to individual facilities) may be aggregated, and therefore not made publicly available, where there are demonstrable confidentiality considerations. However, sufficient data shall be publicly available to provide transparency and credibility to the dataset.
- 6) All data shall be made available, under appropriate confidentiality agreements as necessary, to the VCSA and each of the validation/verification bodies assessing the proposed performance benchmark methodology, to allow them to reproduce the determination of the performance benchmark. Data shall be presented in a manner that enables them to independently assess the presented data.
- 7) Data shall be appropriate to the methodology's geographic scope and the project activities applicable under it.
- 8) All reasonable efforts shall be undertaken to collect sufficient data and the use of expert judgment as a substitute for data shall only be permitted where it can be demonstrated that there is a paucity of data. Expert judgment may be applied in interpreting data. Where expert judgment is used, good practice methods for eliciting expert judgment shall be used (eg, *IPCC 2006 Guidelines for National GHG Inventories*).
- 9) Where data must be maintained in a central repository on an on-going basis (eg, in a database that holds sector data for use by project proponents in establishing specific performance benchmarks for their projects), there shall be clear and robust custody arrangements for the data and defined roles and responsibilities with respect to the central repository.

Where such data requirements set out above cannot be met, a performance method shall not be applied except as set out in Section 4.3.5.

- 4.5.7** The dataset may be documented and contained within the methodology, or may be maintained in a separate repository that is referenced by the methodology. Datasets documented and contained within methodologies are static datasets, where all projects use the level of the performance benchmark metric specified in the methodology (noting that autonomous improvement factors may be used, as set out in Section 4.5.5 above). The following applies with respect to datasets maintained in a separate repository:
- 1) The dataset may be static or dynamic (ie, may or may not be periodically updated).
 - 2) The methodology shall establish criteria and procedures for use of the dataset and for establishing specific performance benchmarks for individual projects.
 - 3) The methodology may specify that projects use the level of the performance benchmark metric available at project validation for the duration of their project crediting periods, or may specify that projects use an updated level of the performance benchmark metric at each verification event, The frequency that data is updated within the dataset shall be determined by the methodology developer.
 - 4) It shall be demonstrated that procedures are in place to maintain the dataset in accordance with the applicable requirements set out for data and datasets in Section 4.5.6 above.

Activity Methods

- 4.5.8** There are no specific requirements for activity methods, noting that methodologies using an activity method may use a project or performance method for determining the crediting baseline, as set out in Section 4.1.10.

4.6 ADDITIONALITY

General

- 4.6.1** The methodology shall establish a procedure for the demonstration and assessment of additionality based upon the requirements set out below. Note that such requirements are for methodology development, and projects shall demonstrate and assess additionality in accordance with the requirements set out in the applied methodology.
- 4.6.2** Methodologies shall use a project method, performance method and/or activity method to determine additionality. The high level specifications and procedural steps for each approach are set out in Sections 4.6.3 to 4.6.9 below. New methodologies developed under the VCS shall meet this requirement by doing one of the following:
- 1) Referencing and requiring the use of an appropriate additionality tool that has been approved under the VCS or an approved GHG program;
 - 2) Developing a full and detailed procedure for demonstrating and assessing additionality directly within the methodology; or
 - 3) Developing a full and detailed procedure for demonstrating and assessing additionality in a

separate tool, which shall be approved via the methodology approval process, and referencing and requiring the use of such new tool in the methodology.

Note - Reference in a methodology to the VCS requirements on additionality is insufficient. The VCS requirements are high level requirements and do not represent a full and detailed procedure for the demonstration of additionality. The only exception to this is with respect to regulatory surplus (ie, methodologies may directly reference the VCS requirements on regulatory surplus and do not need to further develop a procedure for demonstrating and assessing regulatory surplus).

Project Method

4.6.3 Step 1: Regulatory Surplus

The project shall not be mandated by any law, statute or other regulatory framework, or for UNFCCC non-Annex I countries, any systematically enforced law, statute or other regulatory framework. For UNFCCC non-Annex I countries, laws, statutes, regulatory frameworks or policies implemented² since 11 November 2001 that give comparative advantage to less emissions-intensive technologies or activities relative to more emissions-intensive technologies or activities need not be taken into account. For all countries, laws, statutes, regulatory frameworks or policies implemented since 11 December 1997 that give comparative advantage to more emissions-intensive technologies or activities relative to less emissions-intensive technologies or activities shall not be taken into account.

4.6.4 Step 2: Implementation Barriers

The project shall face one or more distinct barrier(s) compared with barriers faced by alternatives to the project:

- 1) Investment barrier: Project faces capital or investment return constraints that can be overcome by the additional revenues associated with the sale of GHG credits.
- 2) Technological barriers: Project faces technology-related barriers to its implementation.
- 3) Institutional barriers: Project faces financial (other than identified in investment barrier above), organizational, cultural or social barriers that the VCU revenue stream can help overcome.

4.6.5 Step 3: Common Practice

The project shall not be common practice, determined as follows:

- 1) Project type shall not be common practice in sector/region, compared with projects that have received no carbon finance.

² Implemented in the context of this paragraph means enacted or introduced, consistent with use of the term under the CDM rules on so-called Type E+ and Type E- policies.

- 2) Where it is common practice, the project proponent shall identify barriers faced compared with existing projects.
- 3) Demonstration that the project is not common practice shall be based on guidance provided in *The GHG Protocol for Project Accounting*, Chapter 7 (WRI-WBCSD).

Performance Method

4.6.6 Step 1: Regulatory Surplus

The project activity shall meet with the requirements on regulatory surplus set out under the project method in Section 4.6.3.

4.6.7 Step 2: Performance Benchmark

The GHG emissions generated (or carbon sequestered) per unit of output, unit of input or sequestration metric by the project shall be below (or above, for sequestration) the prescribed performance benchmark metric or proxy for such metric (see Section 4.1.16 for specification of the metric). Proxy metrics or conditions may be specified where it can be demonstrated that they are strongly correlated with the performance benchmark metric and that they can serve as an equivalent or better method (eg, in terms of reliability, consistency or practicality) to determine whether performance is achieved to a level at least equivalent to that of the performance benchmark metric.

GHG emissions generated (or carbon sequestered) may be above (or below, for sequestration) the prescribed performance benchmark metric or proxy for such metric for a given verification period, though the project shall not be granted credit for such verification periods.

Activity Method

4.6.8 Step 1: Regulatory Surplus:

The project activity shall meet with the requirements on regulatory surplus set out under the project method in Section 4.6.3.

4.6.9 Step 2: Positive List:

The methodology shall apply one or more of the following three options:

1) Option A: Activity Penetration

The methodology shall demonstrate that the project activity has achieved a low level of penetration relative to its maximum adoption potential, as follows:

- a) The methodology shall demonstrate that the project activity has achieved a low level of penetration relative to its maximum adoption potential, determined using the following equation:

$$AP_y = OA_y / MAP_y$$

Where

- AP_y = Activity penetration of the project activity in year y (percentage)
- OA_y = Observed adoption of the project activity in year y (eg, total number of instances installed at a given date in year y, or amount of energy supplied in year y)
- MAP_y = Maximum adoption potential of the project activity in year y (eg, total number of instances that potentially could have been installed at a given date in year y, or the amount of energy that potentially could have been supplied in year y)

The maximum adoption potential is the total adoption of a project activity that could currently be achieved given current resource availability, technological capability, level of service, implementation potential, total demand, market access and other relevant factors within the methodology's applicable geographically defined market. Maximum adoption potential does not consider market price, cost of adoption, consumer education, cultural or behavioral barriers, and laws, statutes, regulatory frameworks or policies.

Maximum adoption potential is constrained by numerous factors each imposing their own limitations on the total adoption of a project activity. The following list provides further specification with respect to factors that do, and do not, need to be considered in determining maximum adoption potential:

- i) Resource availability is the limitation imposed by the supply of raw materials or energy resources to the activity.
- ii) Technological capability is the limitation imposed by the technical efficiency of the project activity.
- iii) Level of service is the limitation imposed by the technical reliability or quality of the service provided by the project activity relative to its alternatives.
- iv) Implementation potential is the limitation imposed by the availability of appropriate locations for implementing the project activity.
- v) Total demand is the limitation imposed by demand for the product or service provided by, or associated with, the project activity and all relevant alternative sources of the product or service.
- vi) Market access is the limitation imposed by current infrastructure and the degree to which the outputs of project activity can be practically supplied to the market.

vii) Market price is the limitation imposed by the current price achievable for outputs from the project activity. Cost of adoption is the limitation imposed by the cost of switching to the project activity from an alternative activity. Consumer education is the public knowledge or awareness of the activity and its benefits. Behavioral or cultural barriers are limitations resulting from social or cultural inertia with respect to the adoption of the project activity.

Data used in determining the level of activity penetration shall meet the requirements for data set out for performance benchmarks in Section 4.5.6, *mutatis mutandis*.

- b) The level of penetration of the project activity shall be no higher than five percent.
- c) Where the project activity has been commercially available in any area of the applicable geographic scope for less than three years (ie, it uses a new technology or measure), it shall be demonstrated that the project activity faces barriers to its uptake. Such barriers shall be demonstrated in accordance with Step 3 (barrier analysis) of the latest version of the CDM *Tool for the demonstration and assessment of additionality*.

2) Option B: Financial Viability

The methodology shall demonstrate that the project activity is less financially or economically attractive than the alternatives to the project activity using the procedures for investment analysis set out in the CDM *Tool for the demonstration and assessment of additionality*. This requires that Steps 1, 2 and 4 of such tool are followed. The analysis shall be conducted for the class of project activities to which the methodology is applicable, and the following also applies:

- a) Sub-step 1a. Other realistic and credible alternative scenarios shall be taken to mean the full range of alternatives to the class of project activity that are found and are operational in the applicable geographic scope.
- b) Sub-step 1b. Where the methodology is applicable to more than one country, the mandatory applicable legal and regulatory requirements of all countries shall be examined.
- c) Sub-step 2b and Sub-step 2c. The following applies:
 - i) The full range of circumstances which can influence the project activity shall be considered, and either average circumstances or the circumstances that lead to the most cost effective outcome shall be assumed (eg, if the observed wind resource in the geographic scope of the methodology leads to plant load factors for wind turbines of between 25 and 30 percent, an average of these figures can be used, or 30 percent may be assumed).
 - ii) Likewise, the full range of cost and/or revenue estimates for the project activity shall be considered, and either average estimates or the estimates that lead to the most cost effective outcome shall be assumed.
 - iii) The full range of circumstances related to the baseline alternatives shall be considered, and either average circumstances or the circumstances that lead to the

most cost effective outcome shall be assumed. Only observed or realistic circumstances shall be included (eg, in a country where cement plants are all located close to harbors or large rivers with a view to easy access to transport, it would not be realistic to assume cement plants would be located in remote areas without easy access to transport).

- iv) Likewise, the full range of cost and/or revenue estimates for the baseline alternatives shall be considered, and either average estimates or estimates pertaining to the most likely baseline alternative shall be assumed. Where estimates pertaining to the most likely baseline alternative are used, it shall be substantiated that such baseline alternative is the most likely among the alternatives.
 - d) Sub-step 2b, Option III. Company internal benchmarks may not be used.
 - e) Sub-step 2d. Where average circumstances or estimates have been used in Sub-step 2b and/or Sub-step 2c (ie, calculations have been based upon a range of circumstances or estimates, see above), a sensitivity analysis shall be undertaken. The objective of the sensitivity analysis is to test whether the conclusion regarding the financial/economic attractiveness of the class of project activity is robust to reasonable variations in the critical assumptions, and where it does not demonstrate conclusively that the (entire class of) project activity is additional, the project activity shall not qualify for the positive list under this Option B. Where the most cost effective, and therefore most conservative, circumstances or estimates have been used, a sensitivity analysis is not required.
 - f) Step 2 (General). Where there are multiple circumstances and estimates that must be aggregated in order to calculate output figures, the method of aggregation shall account for the correlations between each circumstance and estimate.
 - g) Step 4 (Common practice analysis). It shall be demonstrated that the project activity is not common practice using the full procedures for common practice analysis set out in the CDM *Tool for the demonstration and assessment of additionality*.
- 3) Option C: Revenue Streams

The methodology shall demonstrate that the project activity does not have any significant sources of revenue other than revenue from the sale of GHG credits, as follows:

- a) The project activity's gross annual revenue (including cost savings) excluding from the sale of GHG credits shall not exceed five percent of capital expenditure (see VCS document *Program Definitions* for definition of capital expenditure). All capital expenditures incurred during the project crediting period shall be accounted for and where the project activity involves capital expenditure subsequent to year zero, an appropriate discount rate shall be applied.
- b) It shall be demonstrated that the project activity is not common practice using the full procedures for common practice analysis set out in the CDM *Tool for the demonstration and assessment of additionality*.

4.7 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

General

- 4.7.1** The methodology shall establish criteria and procedures for quantifying GHG emissions and/or removals, and/or carbon stocks, for the selected GHG sources, sinks and/or reservoirs, separately for the project (including leakage) and baseline scenarios.
- 4.7.2** The methodology shall establish criteria and procedures for quantifying net GHG emission reductions and removals generated by the project, which shall be quantified as the difference between the GHG emissions and/or removals, and/or as the difference between carbon stocks, from GHG sources, sinks and reservoirs relevant for the project and those relevant for the baseline scenario. Where appropriate, net GHG emission reductions and removals, and net change in carbon stocks, shall be quantified separately for the project and the baseline scenarios for each relevant GHG and its corresponding GHG sources, sinks and/or reservoirs.

Performance Methods

- 4.7.3** In any given verification period, the methodology may result in the project's GHG emission reductions or removals being quantified as negative. This is permitted and the project shall be granted no credit in such periods.

Activity Methods

- 4.7.4** (No specific requirements)

4.8 MONITORING

General

- 4.8.1** The methodology shall describe the data and parameters to be reported, including sources of data and units of measurement.
- 4.8.2** When highly uncertain data and information are relied upon, conservative values shall be selected that ensure that the quantification does not lead to an overestimation of net GHG emission reductions or removals.
- 4.8.3** Metric tonnes shall be used as the unit of measure and the quantity of each type of GHG shall be converted to tonnes of CO₂e. Consistent with UNFCCC accounting, the six Kyoto Protocol greenhouse gases shall be converted using 100 year global warming potentials derived from the *IPCC's Second Assessment Report* (which are also available and reprinted in the *Fourth Assessment Report*). Ozone-depleting substances shall be converted using 100 year global warming potentials from the *Fourth Assessment Report*, which provides a full set of factors relevant to ODS methodologies and projects.

- 4.8.4** The methodology shall establish criteria and procedures for monitoring, which shall cover the following:
- 1) Purpose of monitoring.
 - 2) Monitoring procedures, including estimation, modeling, measurement or calculation approaches.
 - 3) Procedures for managing data quality
 - 4) Monitoring frequency and measurement procedures.

Standardized Methods

- 4.8.5** (No specific requirements)

5 | Validation and Verification Requirements

5.1 INTRODUCTION

- 5.1.1** Validation is the independent assessment of the project by a validation/verification body that determines whether the project complies with the VCS rules. Verification is the periodic ex-post independent assessment by a validation/verification body of the GHG emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS rules.
- 5.1.2** Validation and verification is a risk-based process and shall be carried out in conformance with *ISO 14064-3:2006* and *ISO 14065:2007*. Additional requirements with respect to validation and verification are set out in this Section 5 and shall be adhered to.
- 5.1.3** The validation/verification body shall select samples of data and information to be validated or verified to provide a reasonable level of assurance and to meet the materiality requirements of the specific project.

5.2 GENERAL REQUIREMENTS

- 5.2.1** The project shall be validated and GHG emission reductions or removals verified by a validation/verification body that meets with the eligibility requirements set out in the *VCS Program Guide*.

- 5.2.2** Validation and verification of the project may be undertaken by the same validation/verification body, noting the rules on rotation of validation/verification bodies set out in Section 5.3.12 below. Validation may occur before the first verification or at the same time as the first verification.
- 5.2.3** The project shall be listed on the project pipeline before the opening meeting between the validation/verification body and the project proponent (such opening meeting representing the beginning of the validation process). The validation/verification body is responsible for checking that the project is listed on the project pipeline and shall not conduct the opening meeting or otherwise begin validation until such time as the project is listed.
- 5.2.4** Where the project applies a methodology from an approved GHG program that does not have an independent validation step, the VCS rules still require validation of the project.
- 5.2.5** Validation/verification bodies are expected to follow the guidance provided in the VCS *Validation and Verification Manual* when validating or verifying projects and conducting methodology assessments under the VCS Program.

5.3 VALIDATION AND VERIFICATION PROCESS

General Requirements

- 5.3.1** In addition to the requirements set out in *ISO 14064-3:2006*, the following shall apply:
- 1) The level of assurance shall be reasonable, with respect to material errors, omissions and misrepresentations, for both validation and verification.
 - 2) The criteria for validation shall be the *VCS Version 3*, or approved GHG program where the validation is performed under an approved GHG program (as in cases of participation under the VCS Program and an approved GHG program). The criteria for verification shall be the *VCS Version 3* (regardless of the VCS version or GHG program under which the project was validated). This means the validation or verification shall ensure conformance of the project with the VCS rules, or rules and requirements of the approved GHG program, as applicable.
 - 3) The objective of validation or verification shall be in conformance with the VCS rules and the methodology applied to the project.
 - 4) The threshold for materiality with respect to the aggregate of errors, omissions and misrepresentations relative to the total reported GHG emission reductions and/or removals shall be five percent for projects and one percent for large projects.
- 5.3.2** Where the project does not fully comply with the methodology, the validation/verification body shall determine whether this represents a methodology deviation or a methodology revision (in accordance with the specifications for each), and the case shall be handled accordingly.
- 5.3.3** Where the project applies a revision to an approved GHG program methodology and the version of the (underlying) methodology referenced by the methodology revision is no longer current, the validation/verification body shall determine whether material changes have occurred to the

underlying methodology that affect the integrity of the methodology revision. Where such material changes have occurred, the project shall not be approved.

- 5.3.4** Where the project does not meet the criteria for validation or verification, the validation/verification body shall produce a negative validation conclusion and provide the validation, or verification, report and project description, or monitoring report to the VCSA. The project shall be ineligible for registration until such time as corrective action is taken and the (same) validation/verification body has provided a positive validation or verification.

Competence

- 5.3.5** The validation/verification body and validation and verification team shall meet the competence requirements set out in *ISO 14065:2007, mutatis mutandis*.

Validation and Verification Reporting

- 5.3.6** The validation report describes the validation process, any findings raised during validation and their resolutions, and the conclusions reached by the validation/verification body. The validation/verification body shall use the *VCS Validation Report Template* (or approved GHG program validation report template where the project is requesting registration under an approved GHG program) and adhere to all instructional text within the template. The validation report shall be accompanied by a validation representation, which shall be prepared using the *VCS Validation Deed of Representation Template*.
- 5.3.7** The verification report describes the verification process, any findings raised during verification and their resolutions, and the conclusions reached by the validation/verification body. The validation/verification body shall use the *VCS Verification Report Template* and adhere to all instructional text within the template. The verification report shall be accompanied by a verification representation, which shall be prepared using the *VCS Verification Deed of Representation Template*.

Validation and Verification Statement

- 5.3.8** The validation report and the verification report shall contain a validation statement and a verification statement, respectively.
- 5.3.9** Validation and verification statements shall:
- 1) Describe the level of assurance of the validation or verification.
 - 2) Describe the objectives, scope and criteria of the validation or verification.
 - 3) Describe whether the data and information supporting the GHG assertion were hypothetical, projected and/or historical in nature.
 - 4) Include the validation/verification body's conclusion on the GHG assertion, including any qualifications or limitations.

5.3.10 The verification statement shall state the volume of GHG emission reductions or removals generated during the monitoring period that have been verified.

Records of Validation and Verification

5.3.11 The validation/verification body 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 where they do not conduct verification for the whole project crediting period.

Rotation of Validation/Verification Bodies

5.3.12 Rotation of validation/verification bodies is required in respect of validation and verification, as follows:

- 1) Validation (including project crediting period renewal validation) and the first verification of a project (in a given project crediting period) may be undertaken by the same validation/verification body. However, the subsequent verification shall be undertaken by a different validation/verification body. For example, if validation and verification were undertaken at the same time, the subsequent verification would have to be undertaken by a different validation/verification body. If validation were undertaken first (ie, separately), the first verification could be undertaken by the same validation/verification body, but the subsequent verification would have to be undertaken by a different validation/verification body.
- 2) A validation/verification body may not verify more than six consecutive years of a project's GHG emission reductions or removals. The validation/verification body may undertake further verification for the project only when at least three years of the project's GHG emission reductions or removals have been verified by a different validation/verification body. Additionally, where a validation/verification body verifies the final six consecutive years of a project crediting period, the project crediting period renewal validation shall be undertaken by a different validation/verification body. Notwithstanding these rules, where AFOLU projects have verification periods longer than six years, a validation/verification body is permitted to verify more than six consecutive years of a project's GHG emission reductions or removals, and the subsequent verification shall be undertaken by a different validation/verification body.

Validation and Verification Requirements for Grouped Projects

5.3.13 Validation and verification of grouped projects shall assess conformance of the project with the requirements for grouped projects set out in the VCS rules.

5.3.14 New project activity instances shall be validated, based on the information reported in the monitoring report, against the applicable set of eligibility criteria. The validation/verification body shall specify which instances meet the eligibility criteria for inclusion in the project. Such validation may be reported in the verification report or a separate validation report. In either case, the validation shall be accompanied by a validation representation.

- 5.3.15** Where, due to the number of project activity instances, it is unreasonable to undertake an individual assessment of each initial or new instance, the validation/verification body shall document and explain the sampling methods employed for the validation of such instances. Such sampling methods shall be statistically sound. The number of instances included in the project, eligible for monitoring and generation of VCUs shall be proportional to the percentage of sampled instances found to be in compliance by the validation/verification body.
- 5.3.16** The verification report for grouped projects shall document and explain the sampling methods employed by the validation/verification body for the verification of GHG emission reductions or removals generated by the project. Such methods shall be statistically sound. Any subsequent changes to the sampling method(s) required as a result of the verification findings shall be documented.

APPENDIX 1: DOCUMENT HISTORY

Version	Date	Comment
v3.0	8 Mar 2011	Initial version released under <i>VCS Version 3</i>
v3.1	15 Jul 2011	<p>Main updates (all effective on issue date):</p> <ol style="list-style-type: none"> 1) Clarified the language for the validation deadline of AFOLU projects. 2) Provided an extension of the validation/verification deadline for AFOLU projects with a start date before 1 January 2002. 3) Incorporated requirements for projects registered sequentially under the VCS Program and a GHG program that is not an approved GHG program. 4) Updated requirements for estimating uncertainty in methodologies. 5) Clarified the rules on grace period granted to projects using new methodologies.
v3.2	1 Feb 2012	<p>Main updates (all effective on issue date, unless otherwise stated):</p> <ol style="list-style-type: none"> 1) Included requirements for standardized methods (Sections 3.1.6, 3.14.1 and 4). 2) Updated rules on double counting to focus on double selling and monetizing, and not double claiming (Section 3.11.2). 3) Expanded requirements and procedures for AFOLU projects registering and issuing credits under the VCS Program and an approved GHG program (Section 3.11). 4) Amended additionality rules on regulatory surplus such that the exception for Type E-policies and systematically enforced law is granted to non-Annex I countries only (Section 4.6.3). Effective from 1 August 2012. 5) Clarified that new requirements released by the VCSA do not impact registered projects (Section 3.1.8). 6) Replaced the term <i>proof of title</i> with <i>evidence of right of use</i> (Sections 3.4.10, 3.11.1, 3.17.2 and 3.18.2).
v3.3	4 Oct 2012	<p>Main updates (all effective on issue date, unless otherwise stated):</p> <ol style="list-style-type: none"> 1) Included reference to jurisdictional programs and nested REDD+ projects (Sections 1 and 2.1). 2) Clarified that the most recent version of external documents shall be used where referenced (Section 1.1). 3) Introduced rules for the use of models, default factors and proxies (Sections 2.3.2, 3.1.4, 3.1.5, 4.1.6, 4.1.7 and 4.1.8). 4) Clarified that the size/scale of project activity instances for grouped projects may need to be considered in establishing eligibility criteria for the inclusion of instances (Section 3.4.9). 5) Added new type of right of use for JNR (Sections 3.4.10 and 3.11.1). 6) Clarified requirements for methodology deviations (Section 3.5.1). 7) Introduced rules on project description deviations, replacing rules on monitoring plan deviations and switching methodologies (Section 3.6). 8) Clarified that the project crediting period under <i>VCS Version 1</i> is deemed as 10 years (Section 3.8.5). 9) Changed the thresholds for project scale so that projects with emission reductions or

		<p>removals greater than 300,000 tonnes CO₂e per year are considered large and the materiality threshold is one percent for large projects. (Sections 3.9 and 5.3.1).</p> <p>10) Clarified that the consultation undertaken on the level of performance benchmark metrics is an expert consultation rather than a general stakeholder consultation (ie, the purpose is to engage technical experts in the process) (Section 4.1.17).</p> <p>11) Added QA/QC guidance for standardized methods data (Section 4.5.6).</p> <p>12) Clarified that proxy metrics or conditions may serve as an <i>equivalent</i> method to determine whether performance is achieved to a level at least equivalent to that of the performance benchmark metric (Section 4.6.7).</p> <p>13) Clarified that the difference in carbon stock between the baseline and project scenarios may be used to quantify the emission reductions from pools (Sections 4.7.1 and 4.7.2).</p> <p>14) Removed monitoring section requirements for standards and factors (previously Section 4.8.2).</p> <p>15) Specified rules on rotation of VVBs (Sections 5.2.2 and 5.3.13). Effective immediately, unless evidence of contracting for verification prior to 4 October 2012 is provided.</p> <p>16) Added new requirement that listing on the project pipeline is required before validation can begin (Section 5.2.3). Effective from 4 April 2013.</p> <p>17) Included reference to the VCS <i>Validation and Verification Manual</i> (Section 5.2.5).</p> <p>18) Revised language on validation report conclusions (Section 5.3.4).</p>
v3.4	8 Oct 2013	<p>Main updates (all effective on issue date):</p> <p>1) Clarified that readers <i>shall</i> use the most current version of this document (Section 1.1).</p> <p>2) Clarified that verification periods cannot overlap (Sections 3.4.10 and 3.16.7).</p> <p>3) Removed reference to JNR-specific right of use for grouped projects (previously Section 3.4.10(7)).</p> <p>4) Extended validation grace period for projects applying a new VCS methodology, including at project crediting period renewal (Sections 3.7.2 and 3.8.5(3)).</p> <p>5) Added requirements on debundling (Section 3.9.2).</p> <p>6) Added new requirements with respect to other forms of GHG-related environmental credits (Sections 3.11.3 and 3.11.4).</p> <p>7) Removed duplication of reporting requirements between the monitoring report, project description, validation report, and verification report and their respective templates (Sections 3.16.6, 3.18.1, 5.3.6 and 5.3.7).</p> <p>8) Removed language on validation/verification body liability (Section 5.2.5).</p> <p>9) Revised VCSA actions for projects not meeting criteria for validation and verification (Section 5.3.4).</p> <p>10) Clarified validation/verification body rotation requirements in respect of project crediting period renewals (Section 5.3.13).</p> <p>11) Expanded the document to be applicable to JNR, and made other minor edits and clarifications to text and grammar (throughout).</p>

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