



# The American Carbon Registry® Standard

The American Carbon Registry's® requirements and specifications for  
the quantification, monitoring, reporting, verification, and  
registration of project-based emissions reductions and removals.

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## Acronym List

ACR	American Carbon Registry®
AFOLU	Agriculture, Forestry and Other Land Use
ANSI	American National Standards Institute
AR	Afforestation/Reforestation
AR4	Fourth Assessment Report of the Intergovernmental Panel on Climate Change
CCBA	Climate, Community and Biodiversity Alliance
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CH <sub>4</sub>	Methane
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide-equivalent
DNA	Designated National Authority
ERT	Emission Reduction Ton
GHG	Greenhouse Gas
GIS	Geographic Information System
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
IFM	Improved Forest Management
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISO	International Organization for Standardization
NPV	Net Present Value
N <sub>2</sub> O	Nitrous Oxide
ODS	Ozone-depleting Substances
OTC	Over-the-counter
PFCs	Perfluorocarbons
QA/QC	Quality Assurance / Quality Control
REC	Renewable Energy Credit or Renewable Energy Certificate
REDD	Reducing Emissions from Deforestation and Degradation
RPS	Renewable Portfolio Standard
SAR	Second Assessment Report of the Intergovernmental Panel on Climate Change
SF <sub>6</sub>	Sulfur Hexafluoride
USEPA	United States Environmental Protection Agency
VCS	Voluntary Carbon Standard
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute

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Development of the *American Carbon Registry*® (*ACR*) *Standard* would not have been possible without the support and advice of the American Carbon Registry's Founding Members. The Winrock International Board of Directors has likewise been indispensable to the *ACR Standard's* development; in particular, ACR wishes to thank Winrock CEO Frank Tugwell and the members of a special Board Task Force who have devoted considerable time to ACR's success: Brooks Browne, Christiana Figueres, Will Ketcham, and Paul Savage.

ACR extends its appreciation to the following individuals who contributed their expertise to develop the *ACR Standard*: Rich Baltimore, Wiley Barbour, Sandra Brown, Cynthia Cummis, Mary Grady, Bill Howley, Kevin Johnson, John Kadyszewski, Gary Kaster, Jonathan Klavens, John Kunz, Nicholas Martin, Lauren Nichols, Tim Pearson, Julia Philpott, and Gordon Smith.

The *ACR Standard* builds on the work of the following organizations: the Clean Development Mechanism, for its baseline, additionality, and monitoring tools and methodologies; the International Organization for Standardization, for its greenhouse gas (GHG) accounting guidance under International Organization for Standardization (ISO) 14064 1-3:2006 and ISO 14065:2007; the U.S. Environmental Protection Agency, for its sector and project tools and methodologies under the Climate Leaders Program; the World Resources Institute/World Business Council for Sustainable Development, for the GHG accounting guidance for projects and inventories under the GHG Protocol Initiative; and the Voluntary Carbon Standard Association, for its Agriculture, Forestry and Other Land Use guidance.

# Introduction

The American Carbon Registry® (ACR) is a voluntary, online greenhouse gas (GHG) registration and emissions tracking system used by members to transparently register verified, project-based emissions reductions and removals as serialized offsets; record the purchase, sale, banking and retirement of tradable offsets, branded as Emission Reduction Tons (“ERTs”); and optionally report, in a separate account, verified GHG inventories.

ACR is an enterprise of the nonprofit Winrock International. Winrock International works with people in the U.S. and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources. Key to this mission is building capacity for climate change mitigation and adaptation and leveraging the power of environmental markets. Since the 1990s, Winrock has been a leader in developing science-based carbon measurement and monitoring methods and protocols.

ACR was founded in 1997 as the GHG Registry by the Environmental Defense Fund and Environmental Resources Trust, and joined Winrock International in 2007. As the first private voluntary GHG registry in the United States, ACR has set the bar for transparency and integrity that is the market standard today.

## The ACR Standard

The *ACR Standard* details ACR’s requirements and specifications for the quantification, monitoring, and reporting of project-based GHG emissions reductions and removals, verification, project registration, and issuance of offsets. The *Standard* establishes the quality level that every project must meet in order for ACR to transform its GHG emissions reductions and removals into tradable and fungible environmental assets for voluntary and emerging U.S. pre-compliance carbon markets. In this and all its standards, ACR aims to maximize flexibility and usability for Project Proponents, while maintaining the environmental integrity and scientific rigor necessary to ensure that projects developed against these standards are recognized as being of the highest quality, whether used for voluntary or pre-compliance early action purposes.

Adherence to this *Standard*, relevant sector-specific standards, and associated methodologies will ensure that project-based offsets represent emissions reductions and removals that are real, measurable, permanent, in excess of regulatory requirements and common practice, additional to business-as-usual, net of leakage, verified by a competent independent third party, and used only once.

Project Proponents wishing to develop a project for registration on ACR should follow this *Standard* and any relevant ACR sector standard. All projects must also use an approved methodology: either an ACR-published methodology, a Clean Development Mechanism (CDM), Voluntary Carbon Standard (VCS) or Climate Leaders methodology accepted by ACR, or a new methodology approved through ACR's internal review, public consultation and scientific peer review process.

The *ACR Standard* amplifies and replaces the *American Carbon Registry Technical Standard 2009 v1.0*. Project Proponents and other interested parties should refer to [www.americancarbonregistry.org](http://www.americancarbonregistry.org) for the latest version of the *ACR Standard*, sector standards, methodologies, tools, document templates, and other guidance.

### Chapter Guide

Chapter 1 provides basics on ACR, followed in Chapter 2 by general accounting and data quality principles for offset projects. Chapter 3 summarizes project eligibility requirements. Chapter 4 details the ACR's tests to ensure that offset projects are additional to business-as-usual, and Chapter 5 describes ACR's approach to ensuring permanence of GHG reductions and removals.

Chapter 6 summarizes the process for Project Proponents to develop and register a project, with slight differences depending on whether the project uses a pre-existing or proposes a new methodology.

The processes for ACR acceptance of pre-existing methodologies and approval of new methodologies are summarized in Chapters 7 and 8. Chapter 9 summarizes ACR requirements for verification of all projects by a competent independent third-party verifier, which are addressed in greater detail in the *ACR Verification Guidelines*. Chapter 10 addresses linkages to other GHG emission trading systems.

Appendix A provides definitions of terms used throughout this document. Appendix B provides a list of normative references on which the *ACR Standard* is based.

The *ACR Standard* does not detail legal responsibilities of ACR and ACR members with regard to the use of the registry, which are provided for in the ACR Member Agreement. A project-specific contract between ACR and Project Proponents governs the operation of a buffer account to mitigate the risk of reversals in certain types of projects.

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# CHAPTER 1: ACR BASICS

## A. Description of the ACR

The American Carbon Registry® is a voluntary, online greenhouse gas registration and emissions trading system used by members to transparently register verified emissions reductions and removals as serialized offsets; record the purchase, sale, banking and retirement of tradable offsets, branded as Emission Reduction Tons (“ERTs”), and optionally report, in a separate account, verified greenhouse gas (GHG) inventories. ACR is an enterprise of Winrock International, a U.S. nonprofit organization.

ACR is a market forum for voluntary and pre-compliance buyers and sellers to develop, register and transact project-based offsets and record transactions, holdings, and retirements. ACR records transactions directly negotiated between buyer and seller and is not an exchange. Offset transactions take place outside of ACR, over-the-counter (OTC) or on exchanges, but are tracked on ACR through the unique serial numbers assigned to every ERT.

## B. Goal

ACR’s goal is to serve the needs of the global voluntary and U.S. voluntary and pre-compliance carbon markets. ACR makes no quality distinction between voluntary and pre-compliance offsets.

## C. Objectives

ACR’s objectives are to:

- Encourage voluntary action to manage GHG emissions;
- Provide guidance, infrastructure, and quality standards to foster eventual acceptance of early reductions in a possible future capped GHG emissions trading market;
- Support best practices in project-level GHG accounting;
- Commercialize innovative methodologies for new project types;
- Encourage broad adoption of climate change-mitigating practices with significant community, economic and environmental benefits;
- Enhance public confidence in market-based action for GHG reduction;
- Support convergence of international and U.S. carbon markets.

## D. Geographic Scope

ACR accepts projects from locations worldwide. Carbon offsets originating from projects within and outside of the U.S., as well as U.S. and non-U.S. organizational inventories, may be registered.



## E. Scope: Greenhouse Gases

The ACR scope includes all sources of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). ACR accepts GHG projects and inventories that include non-Kyoto GHGs in addition to the six Kyoto GHGs. ACR's scope also includes destruction of Ozone-Depleting Substances (ODS) listed in Annexes A, B, C and E of the Montreal Protocol.<sup>1</sup>

## F. Scope: Project Types

ACR accepts all projects supported by ACR-approved methodologies, provided they comply with the *ACR Standard* and relevant sector standards. ACR-approved methodologies include:

- Methodologies published by ACR;
- Methodologies approved under the Clean Development Mechanism (CDM), the Voluntary Carbon Standard (VCS), or the U.S. Environmental Protection Agency (USEPA) Climate Leaders Program, provided such methodologies have been reviewed and accepted by ACR (see Chapter 7);
- Modifications of existing ACR, CDM, VCS, or Climate Leaders methodologies, provide such modifications have been reviewed and accepted by ACR;

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<sup>1</sup> For the full list of GHGs within ACR's scope, see IPCC Fourth Assessment Report (AR4), Working Group 1, Chapter 2, Table 2.14 (page 212) at [http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1\\_Print\\_Ch02.pdf](http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_Ch02.pdf). For ODS controlled under the Montreal Protocol, see [http://ozone.unep.org/Publications/MP\\_Handbook](http://ozone.unep.org/Publications/MP_Handbook).

- New methodologies proposed by Project Proponents and approved by ACR through its public consultation and scientific peer review process (see Chapter 8).

ACR accepts renewable energy projects 100 MW and under, and energy efficiency projects, if the project activity takes place in the developing world and the baseline includes indirect emissions.<sup>2</sup>

ACR will register GHG reductions from certain renewable energy/energy efficiency projects in the U.S. only if *all* of the following criteria are met:

- The project displaces *direct* emissions by reducing the consumption of fossil fuels at a facility the Project Proponent owns or controls, or for which the facility owner has assigned the Project Proponent clear and uncontested offsets title. Examples are biomass co-firing with coal, biogas used to displace natural gas, industrial energy efficiency projects that reduce natural gas use;
- The project meets ACR additionality tests and all other requirements of the *ACR Standard*;

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<sup>2</sup> Under the Kyoto Protocol's Clean Development Mechanism (CDM), the governments of developing countries (non-Annex 1 countries), by approving emission reduction projects from renewable energy projects, provide a *de facto* assignment of emission reduction property rights to Project Proponents instead of owners of fossil fuel power plants. By contrast, renewable energy Project Proponents in Annex 1 countries (industrialized countries) do not have an assignment of emissions reduction property rights by the government, and thus do not have an unambiguous and uncontested ownership claim to the emission reductions.

- The GHG reductions have not been used to meet a regulatory compliance obligation under a binding limit;
- Under a possible future U.S. capped GHG emissions market, the project does not take place at a capped source;
- The project has not been counted toward a mandatory Renewable Portfolio Standard (RPS) obligation or claimed Renewable Energy Credits (RECs), unless regulations in the relevant jurisdiction clearly allow separation (“unbundling”) of RECs and GHG attributes.

ACR’s scope excludes:

- Projects that do not meet all ACR eligibility criteria, including projects which convert and/or clear native ecosystems to generate carbon offsets;
- Renewable energy and energy efficiency projects in the U.S., unless meeting *all* the criteria above. Projects that displace indirect emissions at a source not owned or controlled by the Proponent (e.g., grid-connected wind, solar, biomass or other renewable power generation) generally do not meet these criteria and are ineligible because of the lack of unambiguous and uncontested ownership of the emission reductions, lack of clear additionality, potential for double-counting of offsets and RECs in markets where regulations do not clearly allow for unbundling of

RECs and GHG attributes, and potential for double-counting of offsets and entity-level emissions reductions;

- Indirect emissions reductions and removals as offsets from projects originating in Annex I countries.

## G. Scope: Organizational GHG Inventories

ACR accepts entity-wide GHG inventories developed in accordance with the guidance in the World Resources Institute and World Business Council for Sustainable Development (WRI/WBCSD) *GHG Protocol, Corporate Accounting and Reporting Standard* (2004), the International Organization for Standardization (ISO) 14064-1:2006 *Standard for Corporate Inventories*, or the USEPA Climate Leaders Program’s *Design Principles Guidance, Greenhouse Gas Inventory Protocol* (2005). Entities may report in a GHG Inventory Account their verified base year emissions, climate goals, annual GHG inventory (“carbon footprint”), internal emissions reductions, purchases of verified offsets, and progress towards publicly stated targets.

ACR’s inventory function is not addressed in this document.

## H. Language

The operating language of the ACR is English. All GHG Project Plans, methodologies, tools, verification statements, and other documents required by ACR shall be in English.

## I. Unit of Measure

Project Proponents shall calculate, quantify, and report all GHG reductions and removals in metric tons, converting each metric ton to its CO<sub>2</sub> equivalent (CO<sub>2</sub>e) using calculations based on the SAR 100-year global warming potentials listed in the Intergovernmental Panel on Climate Change (IPCC) *Fourth Assessment Report (AR4)*, Working Group 1, Chapter 2, Table 2.14.<sup>3</sup>

## J. Unit of Exchange

The ACR unit of exchange is a verified emissions reduction, serialized and registered as an Emission Reduction Ton (ERT), denominated in metric tons of CO<sub>2</sub>e.

## K. No Forward Crediting

A project-based offset is the result of a defined and eligible project action that yields after-the-fact, quantifiable and verifiable GHG emissions reductions/removals. ACR will not issue ERTs for GHG emissions reductions or removals that have not yet occurred or are not yet verified. ACR requires that an offset exist prior to issuance and does not forward issue or forward register a projected stream of offsets.

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<sup>3</sup> See [http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1\\_Print\\_Ch02.pdf](http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_Ch02.pdf), page 212. The SAR 100-year values are in the fourth column from the right. Although the IPCC provides a new set of 100-year values in the second column from the right, and may again update GWP values in forthcoming assessment reports, for reasons of fungibility ACR currently requires Project Proponents to use the SAR values. This requirement may change in the future.

## L. Conflict of Interest Policy

As a nonprofit organization that values its reputation for integrity, Winrock International and ACR maintain a strict policy against engaging in activities that present a conflict of interest. Winrock's conflict of interest policy states that "Winrock International seeks to perform its mission in accordance with the highest standards of integrity. Accordingly, each director, officer, and concerned staff member shall avoid all conflicts of interest and shall take reasonable action to avoid circumstances that create the appearance of a conflict of interest." Staff members sign an annual affirmation of that they are in compliance with this policy and are not in a position to gain personally from any action they take as employees.

Winrock offers carbon technical services to a broad range of clients and projects, in pursuit of its mission to support market-based solutions and to build capacity for climate change mitigation and adaptation. These technical services are provided to carbon market participants, conservation organizations, U.S. federal and state government, multilateral and bilateral international development organizations, and others, and include developing science-based carbon measurement and monitoring methodologies and assisting with the preparation of offset project documentation. Winrock's services are not offered primarily to projects destined for ACR, and no project seeking registration on ACR is required to utilize Winrock carbon technical services.

While Winrock provides technical assistance to offset project proponents, Winrock is not a project developer or proponent and has no carried interest in the project for which technical services are provided. Winrock does not sell offsets or take part in any offset transaction on the ACR, since all transactions occur as off-registry transactions directly between buyers and sellers. Winrock does not financially benefit from any transaction on the ACR, save for nominal transaction fees designed to recover Winrock's costs of administering the ACR.

All projects registered on ACR must use an approved methodology that has undergone public consultation, external scientific peer review, or both. This requirement applies to methodologies proposed by non-Winrock third parties as well as methodologies prepared by

Winrock staff. In addition, any project proposed for registration on ACR must be verified by an authorized, independent third-party verifier.

Given the ACR requirement for independent external involvement at these two critical junctures – scientific peer review of all methodologies, and third-party verification of all projects and offsets – Winrock does not consider it a conflict of interest for non-ACR Winrock staff to provide technical or advisory services for a project that ultimately registers on ACR. Note that ACR does not require that Winrock provide technical services or have had any involvement in projects registered on ACR, nor does provision of technical services by Winrock staff to a project guarantee that the project will be deemed eligible for registration on ACR.

# CHAPTER 2: ACCOUNTING AND DATA QUALITY PRINCIPLES

The accounting and data quality principles summarized here are designed to ensure that the assumptions, values, and procedures used by Project Proponents and verifiers result in a fair and true accounting of GHG emission reductions and removals.

## A. Core Principles

ACR affirms a set of guiding principles, based on the ISO 14064-2:2006 specifications, summarized in Table 1.

**Table 1 – Core GHG Accounting Principles**

<b>Relevance</b>	Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user (ISO 14064-2:2006, clause 5.6).
<b>Completeness</b>	Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures (ISO 14064-2:2006, clause 5.3).
<b>Consistency</b>	Enable meaningful comparisons in GHG-related information. Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, boundary, methods, or any other relevant factors.
<b>Accuracy</b>	Reduce bias and uncertainties as far as is practical. Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with confidence as to the integrity of the reported information (WRI/WBCSD, Corporate Inventory Guidance, 2007).
<b>Transparency</b>	Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence. Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used. (WRI/WBCSD, Corporate Inventory Guidance, 2007).

<b>Conservativeness</b>	Use conservative assumptions, values and procedures to ensure that GHG emission reductions or removal enhancements are not overestimated (ISO 14064-2:2006, clause 3.7).
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**B. Boundary Selection**

The Project Proponent shall select, or establish criteria and procedures for the selection of, relevant GHG sources, sinks and reservoirs for regular monitoring or estimation. The Project Proponent shall justify in the GHG Project Plan the exclusion from regular monitoring of any relevant GHG source, sink or reservoir.

In accordance with ISO 14064-2:2006, the Project Proponent shall select or establish criteria, procedures and/or methodologies for quantifying GHG emissions and/or removals for selected GHG sources, sinks and/or reservoirs. The Project Proponent shall quantify GHG emissions and/or removals separately for each relevant GHG for each GHG source, sink and/or reservoir relevant for the project and for the baseline scenario.

The Project Proponent shall provide a detailed description of the geographic boundary of project activities. The project activity may contain more than one facility or discrete area of land, but each facility or land area must have a unique geographical identification, and each land area must meet the land eligibility requirements of the relevant ACR sector standard, if applicable. For Agriculture, Forestry and Other Land Use (AFOLU) projects, the Project Proponent shall provide maps, Geographic Information System (GIS) shapefiles, or other relevant information to delineate the project boundary.

**C. Selection of Data and Methodologies**

The Project Proponent shall use ACR-approved tools, procedures and methodologies to quantify GHG emission reductions and removals. The Project Proponent shall apply these tools and methodologies to quantify the difference between the GHG emissions and/or removals from sources, sinks and reservoirs relevant for the project and those relevant for the baseline scenario.

Chapters 7 and 8 provide detail on ACR-accepted methodologies and tools.

**D. Completeness**

Project Proponents shall consider all relevant information that may affect the accounting and quantification of GHG reductions/removals, including estimating and accounting for any decreases in carbon pools and/or increases in GHG emission sources.

The ACR sets a *de minimis* threshold of 3% of the final calculation of emission reductions. For the purpose of completeness, any decreases in carbon pools and/or increases in GHG emission sources must be included if they exceed the *de minimis* threshold. Any exclusions using the *de minimis* principle shall be justified using fully documented *ex ante* calculations.



## **E. Uncertainty, Accuracy and Precision**

The Project Proponent should reduce, as far as is practical, uncertainties related to the quantification of GHG emission reductions or removal enhancements. Methodologies submitted for ACR approval should include methods for estimating uncertainty relevant to the project and baseline scenario.

ACR requires that the 90% statistical confidence interval of sampling be no more than 10% of the mean estimated amount of emission reduction/removal. If the Project Proponent cannot meet the targeted +/- 10% of the mean at 90% confidence, then the reportable amount shall be the mean minus the lower bound of the 90% confidence interval.

## **F. Conservativeness**

The Project Proponent shall select assumptions and values to ensure that GHG emission reductions and removals are not overestimated, particularly in the event that the Proponent relies on uncertain data and information. For GHG sources, sinks and reservoirs not selected for regular monitoring, the Project Proponent shall estimate GHG emissions and/or removals by the sources, sinks and reservoirs relevant for the project and those relevant for the baseline scenario.

## **G. Emissions Factors**

Where needed to estimate GHG emission reductions or removal enhancements in the project or baseline scenario, the Project Proponent shall select or develop GHG emissions or removal factors that:

- Derive from a scientific peer-reviewed origin;
- Are appropriate for the GHG source or sink concerned;
- Are current at the time of quantification;
- Take account of the quantification uncertainty;
- Yield accurate and reproducible results; and
- Are consistent with the intended use of the monitoring report.

## **H. Managing Data Quality**

The Project Proponent shall establish and apply quality assurance and quality control (QA/QC) procedures to manage data and information, including the assessment of uncertainty, relevant to the project and baseline scenarios.



## CHAPTER 3: PROJECT ELIGIBILITY REQUIREMENTS

Table 2 details ACR eligibility criteria for all projects, provides a definition of each criterion, and articulates ACR requirements. Eligibility requirements for specific project types are

summarized in the relevant ACR sector standard. Project Proponents shall address, in their GHG Project Plan, each of the criteria below.

**Table 2 – ACR Eligibility Requirements for Offset Projects**

Criterion	Definition	ACR Requirement
<p><b>Start Date</b></p>	<p>ACR defines the start date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline.</p> <p>ACR defines the start date for AFOLU projects as the date on which the Project Proponent began the activity on project lands, with more specific guidance in the relevant ACR sector standards.</p>	<p>Non-AFOLU projects with a Start Date of 01 January, 2000, or later are eligible for registration.</p> <p>AFOLU projects with a Start Date of 01 November, 1997, or later are eligible for registration. ACR may accept AFOLU projects with an earlier start date on a case-by-case basis, provided the Project Proponent can demonstrate to ACR that GHG mitigation was an objective from project inception.</p>
<p><b>Minimum Project Term</b></p>	<p>The minimum length of time for which a Project Proponent must commit to maintain project activities, including monitoring.</p>	<p>The minimum term for specific project types is specified in the relevant ACR sector standard (e.g. <i>Forest Carbon Project Standard</i>).</p>

<b>Criterion</b>	<b>Definition</b>	<b>ACR Requirement</b>
<b>Crediting Period</b>	<p>Crediting period is the finite length of time for which the project baseline is valid, and during which a project can generate offsets for registration on ACR. A project’s crediting period may be renewed provided the project baseline is re-assessed, a new GHG Project Plan submitted, and project verified.</p>	<p>The crediting period for non-AFOLU projects shall be seven (7) years, unless otherwise specified in the relevant ACR sector standard. AFOLU projects may have longer crediting periods, as specified in the relevant ACR sector standard.</p> <p>A Project Proponent may apply to renew the crediting period, by demonstrating additionality against then-current regulations, common practice and implementation barriers, complying with then-current ACR standards and criteria, and using ACR-approved baseline methods, emission factors, tools and methodologies in effect at the time of crediting period renewal. ACR does not limit the allowed number of renewals.</p> <p>Projects that are deemed to meet all ACR additionality criteria are considered additional for the duration of their crediting period. If regulations or common practice change during the crediting period, this may make the project non-additional and thus ineligible for renewal, but does not affect its additionality during the current crediting period.</p>
<b>Real</b>	<p>A real offset is the result of a project action that yields after-the-fact, quantifiable and verifiable GHG emissions reductions and/or removals.</p>	<p>GHG reductions and removals shall exist prior to issuance. ACR will not forward issue nor forward register a projected stream of future offsets.</p>
<b>Direct Emissions</b>	<p>An emission or removal is direct if the Project Proponent owns or has control over the source of the emissions (e.g., equipment) or the emissions sink (e.g., project lands).</p>	<p>Project Proponent shall own or have control for the life-of-project over the GHG sources/sinks from which the emissions reductions or removals originate.</p>

Criterion	Definition	ACR Requirement
<b>Additional</b>	<p>Additionality is a test intended to ensure that project offsets are in addition to reductions and removals that would have occurred under current laws and regulations, current industry practices, and without carbon market incentives.</p>	<p>ACR requires every project to pass <i>either</i> an approved performance standard and a regulatory additionality test; <i>or</i> a three-pronged test of additionality in which the project must: 1) exceed regulatory/legal requirements; 2) go beyond common practice; and 3) overcome at least one of three implementation barriers: institutional, financial or technical.</p>
<b>Offset Title</b>	<p>Offset title is a legal term representing rights and interests in an offset, a future stream of offsets, or a project delivering offsets.</p>	<p>Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration, including chain of custody documentation if offsets have ever been sold in the past. Title to offsets shall be clear, unique, and uncontested.</p>
<b>Land Title</b>	<p>Land title is a legal term representing rights and interests in project lands.</p>	<p>For U.S. projects, Project Proponent shall provide land ownership documentation and attestation of clear, unique, and uncontested land title. For international projects, Proponent should provide documentation and/or attestation of land title; ACR may require a legal review by an expert in local law.</p> <p>Land title may be held by a person or entity other than the Project Proponent, provided the Project Proponent has clear, unique, and uncontested offsets title.</p>

Criterion	Definition	ACR Requirement
<p><b>Project Baseline Scenario</b></p>	<p>The project baseline is a counterfactual scenario that forecasts the likely stream of emissions reductions/removals to occur if the Project Proponent does not implement the project, i.e., the "business as usual" case.</p>	<p>Baseline calculations must be consistent with the WRI/WBCSD GHG Protocol and ISO 14064-2 and follow an ACR-approved methodology.</p> <p>Project Proponents shall use appropriate methodologies and tools to estimate and update project baselines. An approved verifier will verify the baseline prior to offset issuance.</p> <p>A Project Baseline remains valid for the duration of the crediting period for that project type, and must be re-assessed in order to renew the crediting period.</p>
<p><b>Permanence</b></p>	<p>Permanence refers to the longevity of an emissions reduction/removal and the risk of reversal, i.e., the risk that atmospheric benefit will not be permanent.</p>	<p>For projects with a risk of reversal of GHG emission reductions/removals, Project Proponents must assess risk using an ACR-approved risk assessment tool. Project Proponents must then mitigate reversal risk by contributing offsets to the ACR buffer pool (either from the project itself, or ERTs of another type and vintage); by providing evidence of sufficient insurance coverage with an ACR-approved insurance product to recover any future reversal; or by using another ACR-approved risk management mechanism.</p> <p>ACR requires geologic sequestration Project Proponents to use approved methodologies that assure permanence including ongoing QA/QC and long-term monitoring.</p>
<p><b>Net of Leakage</b></p>	<p>Leakage is an increase in GHG emissions or decrease in sequestration outside the project boundaries that occurs because of the project action.</p>	<p>ACR requires Project Proponents to assess, account for, and mitigate certain types of leakage, as summarized in relevant sector standards. Project Proponents must deduct leakage that significantly reduces the GHG emissions reduction and/or removal benefit of a project.</p>

Criterion	Definition	ACR Requirement
<p><b>Independent Verification</b></p>	<p>Verification is the independent assessment by a qualified and impartial third party of GHG emission reductions and removals. The outcome is a verification statement that provides an opinion on the relevance, completeness, accuracy, reliability, and transparency of the quantification data and methods.</p>	<p>ACR requires third-party verification, by an ACR-approved verifier, at specified intervals in order to issue new ERTs.</p> <p>Verifiers must use transparent and replicable verification methods against the <i>ACR Standard</i> and relevant sector standards.</p> <p>At each request for issuance of new ERTs (usually annually, but may be more or less frequent at Project Proponent’s request), Project Proponents must submit a verification statement from an approved verifier based on a desk audit.</p> <p>At least once every five years, Proponents must submit a verification statement based on verification including a field visit to the project site and such measurements as the verifier requires in order to verify.</p> <p>Verification is also required in order to renew a project’s crediting period.</p>
<p><b>Community &amp; Environmental Impacts</b></p>	<p>Projects have the potential to generate both positive and negative community and environmental impacts.</p>	<p>ACR requires community and environmental impacts to be net positive overall. Prior to registration, ACR requires all projects to document a mitigation plan for any foreseen negative community or environmental impacts. ACR also requires written disclosure by the Project Proponent, in its Annual Attestation, of any negative environmental or community impacts or claims of negative environmental and community impacts. The Project Proponent must document plans for mitigation of any reported negative environmental or community impacts.</p>

## CHAPTER 4: ADDITIONALITY

Additionality is a test intended to ensure that project offsets are in addition to reductions and removals that would have occurred under current laws and regulations, current industry practices, and without carbon market incentives. Project Proponents must demonstrate that the GHG emission reductions and removals from an offset project are above and beyond the “business as usual” scenario. To qualify as additional, ACR requires every project to use *either* an approved performance standard and a regulatory additionality test, *or* pass a three-prong test of additionality as described below.

### A. ACR’s Three-Prong Additionality Test

The demonstration of additionality can be difficult, and no single test is best for all circumstances. ACR uses an approach that combines three tests that help ACR to

determine whether realizing GHG emissions reductions/removals was a reason, even if one among many, for implementing the project activity. ACR’s three-prong test requires projects to demonstrate that they exceed currently effective and enforced laws and regulations; exceed common practice in the relevant industry sector and geographic region; and face at least one of three implementation barriers – financial, technological, or institutional. The three-prong test is described in Table 3.

ACR does not require methodologies to mandate application of a particular additionality tool. Methodologies must require the Project Proponent to address ACR’s additionality tests, and the GHG Project Plan must present a credible demonstration, acceptable to ACR and the verifier, that the project passes these tests. Project Proponents may find an additionality tool helpful in making this argument.

**Table 3 – ACR’s Three-Prong Additionality Test**

Test	Key Questions
<p><b>Regulatory Surplus</b></p>	<p>Is there an existing law, regulation, statute, legal ruling, or other regulatory framework in effect now or as of the project start date that mandates the project or effectively requires the GHG emissions reductions?</p> <p style="text-align: center;"><b>Yes = Fail; No = Pass</b></p>

Test	Key Questions
<p><b>Common Practice</b></p>	<p>In the field or industry/sector, is there widespread deployment of this project, technology, or practice within the relevant geographic area?</p> <p><b>Yes = Fail; No = Pass</b></p>
<p><b>Implementation Barriers</b></p>	<p><i>Choose one (1) of the following three (3):</i></p> <hr/> <p><b>Financial</b> Does the project face capital constraints that carbon revenues can potentially address; <u>or</u> is carbon funding reasonably expected to incentivize the project’s implementation; <u>or</u> are carbon revenues a key element to maintaining the project action’s ongoing economic viability after its implementation?</p> <p><b>Yes = Pass; No = Fail</b></p> <hr/> <p><b>Technological</b> Does the project face significant technological barriers such as R&amp;D deployment risk, uncorrected market failures, lack of trained personnel and supporting infrastructure for technology implementation, or lack of knowledge on practice/activity?</p> <p><b>Yes = Pass; No = Fail</b></p> <hr/> <p><b>Institutional</b> Does this project face significant organizational, cultural, or social barriers that the accrual of benefits from a GHG emissions reduction/removal project action will help to overcome?</p> <p><b>Yes = Pass; No = Fail</b></p>
<p><b><i>If the project passes the Regulatory Surplus and Common Practice tests, and at least one Implementation Barrier test (i.e., financial, technological, or institutional), ACR considers the project additional.</i></b></p>	



## **B. Regulatory Surplus Test**

The regulatory surplus test involves existing laws, regulations, statutes, legal rulings, or other regulatory frameworks that directly or indirectly affect GHG emissions associated with a project action or its baseline candidates, and which require technical, performance, or management actions. These legal requirements may involve the use of a specific technology, meeting a certain standard of performance (e.g., new source performance standards), or managing operations according to a certain set of criteria or practices (e.g., forest management rules). In determining whether an action is surplus to regulations, ACR does not consider voluntary agreements without an enforcement mechanism, proposed laws or regulations, optional guidelines, or general government policies.

Projects that are deemed to be regulatory surplus are considered surplus for the duration of their crediting period. If regulations change during the crediting period, this may make the project non-additional and thus ineligible for renewal, but does not affect its additionality during the current crediting period.

## **C. Common Practice Test**

The common practice test requires Project Proponents to evaluate the predominant technologies implemented or industry practices undertaken in a particular industry sector and/or geographic region, as determined by the degree to which those technologies or practices have penetrated the market, and demonstrate that the proposed project will reduce GHG emissions below levels produced by common

technologies or practices within a comparable environment (e.g., geographic area, regulatory framework, investment climate, access to technology/financing, etc).

The level of penetration that represents common practice may differ between sectors and geographic areas, depending on the diversity of baseline candidates. The common practice penetration rate or market share for a technology or practice may be quite low if there are many alternative technologies and practices. Conversely, the common practice penetration rate or market share may be quite high if there are few alternative technologies or practices. Projects that are “first-of-its-kind” are not common practice.

Projects that are deemed to go beyond common practice are considered beyond common practice for the duration of their crediting period. If common practice adoption rates of a particular technology or practice change during the crediting period, this may make the project non-additional and thus ineligible for renewal, but does not affect its additionality during the current crediting period.

## **D. Implementation Barriers Test**

An implementation barrier represents any factor or consideration that would prevent the adoption of the practice/activity proposed by the Project Proponent. Generally, there are no barriers to the continuation of current activities, with the exception of regulatory or market changes that force a shift in a project activity, or the end of equipment’s useful lifetime.

Under the implementation barriers test, Project Proponents shall choose at least one of three barrier assessments: i) financial, ii) technological, or iii) institutional. Project Proponents may demonstrate that their project faces more than one implementation barrier, but ACR does not require more than one barrier.

- *Financial* - Financial barriers can include high costs, limited access to capital, or an internal rate of return in the absence of carbon revenues that is lower than the Proponent’s established minimum acceptable rate. Financial barriers can also include high risks such as unproven technologies or business models, poor credit rating of project partners, and project failure risk. If electing the financial implementation barrier test, Project Proponents should include solid quantitative evidence such as net present value (NPV) and internal rate of return (IRR) calculations.
- *Technological* - Technological barriers can include R&D deployment risk, uncorrected market failures, lack of trained personnel and supporting infrastructure for technology implementation, and lack of knowledge on practice/activity.

- *Institutional* - Institutional barriers can include institutional opposition to technology implementation, limited capacity for technology implementation, lack of management consensus, aversion to upfront costs, and lack of awareness of benefits.

## E. Performance Standard Approaches

ACR’s three-prong approach is designed as a rigorous test for demonstrating project-based additionality. ACR meanwhile recognizes that many Project Proponents are beginning to consider various performance standard approaches in which additionality is demonstrated by showing that the GHG emissions generated per unit output by the project are below the level (or GHG removals are above the level) defined as business-as-usual for the product, service, sector or industry in which the project takes place. The *ACR Standard* provides this option by allowing Project Proponents to choose the regulatory surplus plus performance standard path to demonstrate additionality. Performance standard baselines specific to particular project types, activities and regions will be detailed in the relevant sector standards and ACR-published or ACR-approved methodologies.

## CHAPTER 5: PERMANENCE

Permanence refers to the potential for reversal of GHG reductions and removals. While the permanence issue is easily addressed for some project types, since emission reductions occur at the time the technology is put in place and are irreversible, terrestrial and geologic sequestration projects have the potential for GHG reductions and removals to be reversed when a project has exposure to risk factors, including unintentional reversals (e.g., fire, flood, insect infestation etc. for terrestrial projects; seismic disturbances or other unanticipated releases of CO<sub>2</sub> for geologic projects) and intentional reversals (e.g., landowners or Project Proponents choosing to discontinue project activities).

### A. Assessment of Risk

To assess the risk of reversal, ACR requires Project Proponents of AFOLU and geologic sequestration projects to conduct a risk assessment addressing both general and project-specific risk factors. General risk factors include risks such as financial failure, technical failure, management failure, rising land opportunity costs, regulatory and social instability, and natural disturbances. Project-specific risk factors vary by project type.

ACR requires Project Proponents to conduct their risk assessment using the *ACR Tool for Risk Analysis and Buffer Determination*. Prior to release of the ACR tool, Project Proponents may use the VCS Tool for AFOLU Non-

Permanence Risk Analysis and Buffer Determination.<sup>4</sup> The output of either tool is an overall risk category for the project, translating into a number of offsets that must be deposited in the ACR buffer pool to mitigate the risk of reversal (unless the Proponent elects another ACR-approved risk mitigation mechanism).

### B. Primary Risk Mitigation Mechanism: the ACR Buffer Pool

Proponents of projects with a reversal risk must choose a risk mitigation mechanism. For Project Proponents choosing the ACR buffer pool, the project contributes either a number of offsets as determined by the project-specific risk assessment to a buffer account held by ACR in order to replace unforeseen losses. ACR has sole management and operational control over the offsets in the buffer pool. In the event of a reversal, ACR retires from the buffer pool an adequate number of offsets to compensate for the reversal.

To provide flexibility to Project Proponents, contributions to the buffer pool need not come from the project itself whose risk is being mitigated. Through adherence to ACR standards all ERTs are fungible, i.e., one metric ton GHG reduction or removal from any project is of equal benefit to the atmosphere as any

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<sup>4</sup> <http://www.v-c-s.org/docs/Tool%20for%20AFOLU%20Non-Permanence%20Risk%20Analysis%20and%20Buffer%20Determination.pdf>.

other project. Therefore, a Project Proponent may make its buffer contribution in any type or vintage of offsets, for example by purchasing ERTs from another project registered on ACR.

Relevant sector standards (e.g. the *ACR Forest Carbon Project Standard v2.0*) provide further detail on the operation of the ACR buffer pool, including retirement of offsets to mitigate reversals, requirements for replenishing the buffer in the event of a reversal, return of buffer tons to the Project Proponent over time in the event of no reversals, and the possibility for buffer contributions to increase or decrease over time as a project undergoes periodic verification and re-assessment of risk.

### **C. Alternate Risk Mitigation Mechanisms**

In lieu of contributing project offsets or other ERTs to the buffer pool, Project Proponents may wish to use an ACR-approved insurance policy as an alternate risk mitigation mechanism. The policy must guarantee replacement value of the offsets lost in the case of a partial or complete reversal, with no hidden costs or exclusions. ACR will conduct due diligence on the proposed insurance product, at the Project Proponent's or insurance provider's expense, prior to approving its use in lieu of a buffer contribution. ACR may approve additional alternate risk mitigation mechanisms in the future.

## CHAPTER 6: THE ACR PROJECT DEVELOPMENT AND REGISTRATION PROCESS

ACR requires every project submitted for registration to use an ACR-published or ACR-approved methodology, or secure ACR approval of a new methodology. Project Proponents then submit a GHG Project Plan for screening by ACR against the *ACR Standard* and any relevant sector standard. Following certification by ACR that the GHG Project Plan complies with all applicable requirements, the Project Proponent will secure verification by an independent third party. Upon acceptance by ACR of the verification statement, ACR registers the project, posts project documents, and issues serialized ERTs to the Project Proponent's account. The next steps (sale, retirement, etc.) are at the discretion of Project Proponents and buyers.

The steps in this process are outlined below and presented graphically in Figure 1. The first part of the process varies depending on whether a Project Proponent is using an ACR-published or ACR-approved methodology, modifying an approved methodology, or proposing a new methodology. Once a GHG Project Plan has been certified, the remaining steps are the same for all scenarios.<sup>5</sup>

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<sup>5</sup> ACR, and its predecessor the GHG Registry, formerly allowed Project Proponents to submit a *Monitoring, Reporting and Verification (MRV) Protocol* for projects falling outside any sector standard and based on a site-specific approach to GHG quantification and monitoring. This option is no longer available for new projects, due to greater availability of high-quality existing methodologies and the option to secure ACR approval of a new methodology. All new projects must use an ACR-approved

### A. Projects Using an ACR-published or ACR-approved Methodology

A Project Proponent using an ACR-published methodology should proceed directly to prepare a GHG Project Plan as described below. A Proponent using an existing CDM, VCS, or Climate Leaders methodology should first consult the list at [www.americancarbonregistry.org](http://www.americancarbonregistry.org) of presumptively approved methodologies. If a Project Proponent wishes to apply an approved CDM, VCS, or Climate Leaders methodology not included in this list, the Proponent should request review and acceptance of the methodology by ACR's expert methodology review committee. The committee will assess the methodology and determine whether it is approved for use without modifications, approved contingent on certain modifications, or not approved.

Project Proponents then take the following steps:

1. Project Proponent submits a GHG Project Plan using the ACR-published or ACR-approved methodology. The Proponent should at this point also submit any additional required documentation as listed in Section F below.
2. ACR conducts an Eligibility Screening, at fees per the currently published ACR fee schedule,<sup>6</sup> against the *ACR Standard* and any relevant sector standard. This Eligibility

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methodology or secure approval of a new methodology, and submit a GHG Project Plan.

<sup>6</sup> The ACR fee schedule is posted at [www.americancarbonregistry.org](http://www.americancarbonregistry.org).

Screening results in (a) an unqualified approval, or Certification, (b) a request for corrections, or (c) rejection because the project is ineligible or does not meet requirements of the *ACR Standard*. If the GHG Project Plan receives a request for corrections, the Project Proponent may re-submit the GHG Project Plan for eligibility screening, no more than twice. One re-submittal is allowed without additional fee; a second re-submittal requires an additional eligibility screening fee.

3. *(Optional)* Once the project has secured ACR certification as eligible and compliant with ACR standards, at the Project Proponent's discretion the project may be registered as a project awaiting verification and issuance of ERTs. ACR does not forward credit or issue any ERTs until the project has been verified and GHG reductions or removals have occurred, and this optional early registration is not a guarantee of verification or ERT issuance. If the Project Proponent opts for early registration, the extent and type of project documentation posted by ACR is at the Proponent's discretion. The Proponent may request ACR to post its GHG Project Plan, a shorter project description provided by the Proponent, or simply to list the project as "pending verification and issuance" without additional documentation.
4. Having secured ACR certification, Project Proponent hires an ACR-approved independent third-party verifier to verify the project. Fees for verification are as agreed between the Project Proponent and verifier.

This results in submission to ACR of a verification statement.

5. ACR reviews the verification statement. This results in a) acceptance of the verification statement, b) acceptance contingent on requested corrections or clarifications, or c) rejection of the verification statement.
6. Having accepted the verification statement, ACR registers the project (unless it is already registered under optional step 3) and posts the GHG Project Plan, verification statement and any other non-commercially sensitive information on the ACR website.
7. ACR issues to the Project Proponent's account serialized ERTs for that vintage year in the amount listed in the verification statement, at current published issuance fees. In the case of an AFOLU or geologic sequestration project, ACR simultaneously deposits the appropriate number of ERTs into the ACR buffer pool, if this is the risk management option chosen by the Project Proponent.
8. Next steps are at the Project Proponent's discretion – sale, retirement, etc. – with transaction and retirement fees per currently published ACR schedule. ACR records the transactions as authorized by buyer and seller.

## **B. Projects Modifying an Existing Approved Methodology**

Projects using an ACR, CDM, VCS, or Climate Leaders methodology, but modifying that methodology, should take the following steps:

1. Project Proponent submits to ACR the proposed methodology modification. ACR



reviews the proposed modification at currently published ACR methodology screening fees, and determines whether it represents a methodology deviation or more substantial methodology revision requiring scientific peer review. If ACR deems that the proposed modification is a methodology revision requiring scientific peer review, additional funds will be required for peer review and approval of the modified methodology. Timing and costs for scientific peer review depend on the complexity of the modification and availability of peer reviewers.

2. Having secured ACR approval of the methodology modification, the Project Proponent submits a GHG Project Plan using the modified approved methodology. The Proponent should at this point also submit any additional required documentation as listed in Section F below.
3. Steps 2 through 8 as in A.

### **C. Projects Proposing a New Methodology for ACR Approval**

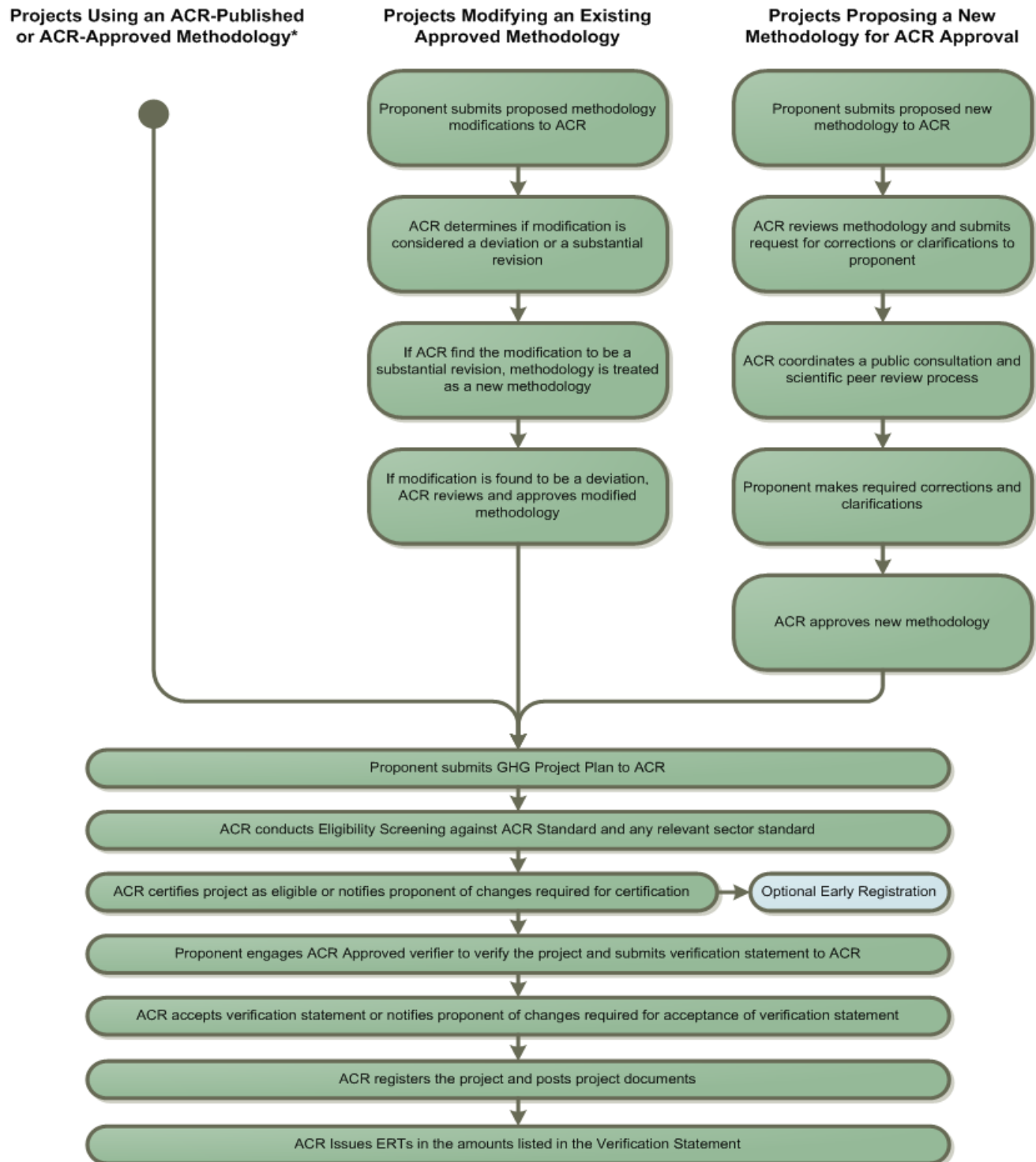
For projects for which there is no ACR-published or ACR-approved methodology the Project Proponent finds acceptable, ACR offers the option of proposing a new methodology for review and approval. Project Proponents should take the following steps:

1. Project Proponent submits to ACR the proposed new methodology. Approval of new methodologies requires both ACR's own review, and a public consultation and scientific peer review process coordinated by ACR.

2. ACR reviews the new methodology, communicates with the Project Proponent on any corrections or clarifications that are immediately needed, and informs the Proponent of its judgment whether the methodology is ready for external scientific peer review. ACR conducts this review at currently published fees. If the Project Proponent elects to proceed, the Proponent addresses any corrections and clarifications identified in the ACR review and resubmits the methodology.
3. ACR coordinates a public consultation and anonymous peer review process as described in Chapter 8. ACR will communicate to the peer reviewers any relevant considerations from the public consultation process. Timing and cost of scientific peer review depends on the complexity, scope and quality of the methodology and the availability of peer reviewers. The cost of peer review is borne by the Project Proponent.
4. Project Proponent makes any corrections or clarifications required by peer reviewers and submits the revised methodology to ACR.
5. With all required corrections made, ACR approves the new methodology, which may then be used by the Project Proponent and also published by ACR.
6. Having secured ACR approval of the new methodology, the Project Proponent submits a GHG Project Plan. The Proponent should at this point also submit any additional required documentation as listed in Section F below.
7. Steps 2 through 8 as in A.



**Figure 1. The ACR Project Development, Verification, and Registration Process**



\*Project Proponents using an existing CDM, VCS or Climate Leaders methodology should first consult the list at <http://www.americancarbonregistry.org/carbon-accounting/standards> of positively approved methodologies. If the methodology is not included in this list, the Proponent should request review and acceptance of the methodology by ACR's internal methodology review committee.

## D. Information in a GHG Project Plan

A successful GHG Project Plan is a document that describes the project activity; specifically addresses ACR eligibility requirements; identifies sources and sinks of GHG emissions; establishes project boundaries; describes the baseline scenario; defines how GHG quantification will be done and what methodologies, assumptions, and data will be used; and provides details on the project's monitoring, reporting, and verification procedures. A GHG Project Plan should be sufficient for an independent third party to verify project outcomes.

The Project Proponent should include the following information in the GHG Project Plan:

- Project title, purpose(s) and objective(s);
- Type of GHG project;
- Project location, including geographic and physical information allowing for the unique identification and delineation of the specific extent of the project;
- Physical conditions prior to project initiation;
- Description of how the project will achieve GHG emission reductions and/or removal enhancements;
- Project technologies, products, services and expected level of activity;
- *Ex ante* projection of estimated GHG emission reductions and removal enhancements, stated in metric tons of CO<sub>2</sub>e;
- Identification of risks that may substantially affect the project's GHG emission reductions or removal enhancements;
- Roles and responsibilities, including contact information of the Project Proponent, other project participants, relevant regulator(s) and/or administrators of any GHG Program(s) in which the GHG project is already enrolled, and the entities holding offset title and land title;
- Information relevant to the eligibility of a GHG project and quantification of GHG emission reductions or removal enhancements, including legislative, technical, economic, sectoral, socio-cultural, environmental, geographic, site-specific and temporal information;
- Relevant outcomes from any stakeholder consultations and mechanisms for on-going communication, as applicable;
- Chronological plan for initiating project activities, project term, frequency of monitoring, reporting and verification, including relevant project activities in each step of the GHG project cycle;
- Notification of relevant local laws and regulations related to the project and a demonstration of compliance with them;
- Statement whether the project has applied for GHG emission reduction or removal credits through any other GHG emissions trading system and the success of any of these applications;
- An assessment of net positive community and environmental impacts, and a mitigation plan for any foreseen negative community or environmental impacts.

## E. Commercially Sensitive Information

Project Proponents may exclude Commercially Sensitive Information from their GHG Project Plan and verification statements when published on the ACR database, but shall include such information in the GHG Project Plan and verification statements submitted to ACR. Proponents should clearly indicate which information is considered commercially sensitive and should be excised from documents before posting.

For the sake of transparency, ACR shall presume project information to be available for public scrutiny, and demonstration to the contrary shall be incumbent on the Project Proponent. At a minimum, ACR shall disclose publicly the project baseline scenario, calculations, monitoring report and additionality assertion. The verifier shall check that any information requested as “commercially sensitive” meets the ACR definition of Commercially Sensitive Information.

## F. Additional Required Documentation for Eligibility Screening

ACR may require the following documentation, in addition to the GHG Project Plan, in order to conduct an Eligibility Screening:

- Title documents or sample landowner agreements;
- Chain of custody documentation, if applicable;
- ACR-Proponent agreement governing buffer pool obligations, if applicable;

- Permanence risk assessment and buffer determination, conducted using an approved tool, if applicable.

Proof of Title shall accompany each GHG Project Plan, and shall contain one or more of the following: a legislative right; a right under local common law; ownership of the plant, land, equipment and/or process generating the reductions/removals; or a contractual arrangement with the owner of the plant, land, equipment or process that grants all reductions/removals to the Project Proponent.

Project Proponents shall include documentation to establish Chain of Custody, prior to registration on ACR, if the project offsets have been bought and sold previously, or if the project has a forward option contract. Examples of appropriate documents are:

- Delivery of Confirmation Notice;
- Emissions Reduction Purchase Agreement;
- Signed Attestation of Ownership;
- Forward Option Purchase Agreement.

## G. Crediting Period Renewal

All projects have a limited crediting period, i.e., the number of years during which a project baseline is valid and the project can generate offsets against its baseline.

In general, the crediting period for non-AFOLU projects is seven (7) years, unless otherwise specified in the relevant ACR sector standard. For example, longer crediting periods are specified in the *ACR Forest Carbon Project Standard*.

A Project Proponent may apply to renew the crediting period by:

- Re-submitting the GHG Project Plan in compliance with then-current ACR standards and criteria;
- Re-evaluating of the project baseline;
- Demonstrating additionality against then-current regulations, common practice and implementation barriers;
- Using ACR-approved baseline methods, emission factors, tools and methodologies in effect at the time of crediting period renewal;
- Undergoing verification by an ACR-approved verifier.

ACR does not limit the allowed number of renewals, since at each crediting period renewal the Project Proponent must demonstrate that the project is additional and meets all ACR requirements. A positive verification statement is necessary in order for ACR to renew the crediting period and continue issuing offsets generated by the project. Upon acceptance by ACR of the verification statement, ACR will issue new ERTs each year (or more or less frequently, at Proponent's request) for the duration of the new crediting period, provided the Proponent submits its Annual Attestation, periodic desk-based verifications, and full verifications at least every five years.

# CHAPTER 7: ACCEPTED METHODOLOGIES AND TOOLS

ACR recommends use of ACR's own published methodologies and tools where available. However, to provide flexibility to Project Proponents, ACR accepts methodologies and tools approved by other GHG emission systems as described below to the extent that their normative reference is ISO 14064, Parts 1-3:2006; they are industry best practice, and are approved (not just under evaluation or public comment) by the relevant GHG emission system. Any project proposing to use an ACR-approved methodology from another GHG emission system must comply with the ACR Standard and any relevant ACR sector standard.

## A. GHG Measurement Tools and Methodologies

ACR generally accepts methodologies and tools approved for use by the CDM, the USEPA Climate Leaders Program, or the VCS. ACR also gives Project Proponents the flexibility to propose modifications to ACR, CDM, USEPA, and VCS methodologies and tools.

A list of presumptively approved methodologies is at [www.americancarbonregistry.org](http://www.americancarbonregistry.org). Methodologies in this list are presumptively approved because they have been approved for use by these programs, because they were authored by Winrock technical staff and have been successfully peer reviewed, or because

they have been reviewed and found to reflect best practice in GHG accounting based on currently available science.

If a Project Proponent wishes to apply an existing methodology not included on this list, the Proponent should submit the methodology for review by ACR's expert methodology as described below.

Links to all current CDM, VCS and Climate Leaders methodologies are below.

- All CDM methodologies: <http://cdm.unfccc.int/methodologies/index.html>
- EPA Climate Leaders cross-sector guidance and sector-specific guidance: <http://www.epa.gov/stateply/resources/index.html>
- EPA Climate Leaders offset project methodologies: <http://www.epa.gov/stateply/resources/optional-module.html>.
- All VCS methodologies: <http://v-c-s.org/methodologies.html>.

## B. Review Process for GHG Methodologies

### 1. Existing approved methodologies without modification

Project Proponents should notify ACR that they plan to use an existing ACR-published methodology, or existing CDM, Climate

Leaders, or VCS methodology, without modification. If the proposed methodology is an ACR-published methodology, or a CDM, Climate Leaders, or VCS methodology included in the presumptively approved list at [www.americancarbonregistry.org](http://www.americancarbonregistry.org), ACR accepts the methodology and Project Proponents should proceed to prepare a GHG Project Plan. If the proposed CDM, Climate Leaders, or VCS methodology is not included in that list, ACR's expert methodology review committee will assess the methodology and determine whether it is approved for use without modifications, approved contingent on certain modifications, or not approved. This review is conducted at currently published fees.

## **2. *Modifications to existing methodologies***

ACR will permit modifications where they do not negatively impact the conservativeness of an approved methodology's approach to determining additionality and quantification of GHG emissions reductions and removals.

Project Proponents who believe they are proposing a methodology deviation rather than revision should submit the existing methodology and the proposed deviation for review by ACR's expert methodology review committee. ACR will determine whether the proposed deviation is significant enough to constitute a revision requiring scientific peer review. If peer review is not required, ACR will review and approve the methodology deviation at currently published fees. If the committee deems the scope of modifications significant enough to require external peer review, additional funds will be required.

## **3. *Methodology revisions and new methodologies***

The process for ACR review and approval of methodology revisions (i.e., major modifications) and new methodologies is summarized in the Chapter 8.

### **C. Methodologies and Tools for Community and Environmental Impact Assessment**

ACR uses the Climate, Community & Biodiversity Alliance (CCBA) definition of community:

“A community includes all groups of people including indigenous peoples, mobile peoples and other local communities, who live within or adjacent to the project area as well as any groups that regularly visit the area and derive income, livelihood or cultural values from the area. This may include one or more groups that possess characteristics of a community, such as shared history, shared culture, shared livelihood systems, shared relationships with one or more natural resources (forests, water, rangeland, wildlife, etc.), and shared customary institutions and rules governing the use of resources.”<sup>7</sup>

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<sup>7</sup> CCB Standards, Project Design Standards. Second Edition (2008).



ACR requires community and environmental impacts to be positive overall. The difference in community impacts between the 'with' and 'without' project scenarios (i.e., the community benefit) shall be positive in order for the project to qualify for registration.

Project Proponents shall include in their GHG Project Plan a credible estimate of impacts of the project on communities and the environment in the immediate project area. This should include changes in community well-being due to project activities and an evaluation of any negative impacts on community groups. Project Proponents shall base these estimates on defined and defensible assumptions about how project activities will alter social and economic well-being, including potential impacts of changes in natural resources and ecosystem services identified as important by the communities over the duration of the project.

Project Proponents should disclose in their Annual Attestation any negative environmental or community impacts or claims of negative environmental and community impacts, and

document plans for mitigation of any reported negative environmental or community impacts.

Project Proponents are not required to use CCBA tools, comply with the CCB Standard, or complete the CCBA certification process, but may wish to use CCBA tools to prepare the community and environmental impacts component of their GHG Project Plan. A list of tools and resources is in the CCB Standards, Second Edition.<sup>8</sup> Proponents should in particular consult Appendix A, CM1 - Net Positive Community Benefits.

Projects that have completed the CCBA certification process and present documentation of this can be listed as CCBA-certified on the ACR.<sup>9</sup>

Project Proponents should note that CCBA certification addresses only the community and biodiversity impacts of a project, not its GHG reductions or removals. Therefore CCBA certification in itself is not sufficient for a project to claim GHG reductions/removals unless paired with adherence to ACR or other comparable GHG standards and methodologies.

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<sup>8</sup> See [http://www.climate-standards.org/standards/pdf/ccb\\_standards\\_second\\_edition\\_december\\_2008.pdf](http://www.climate-standards.org/standards/pdf/ccb_standards_second_edition_december_2008.pdf).

<sup>9</sup> Pending agreement with CCBA.



## CHAPTER 8: NEW METHODOLOGIES AND TOOLS

ACR promotes innovation to bring new offset types to market. If ACR has not yet published a methodology for a particular project type, the Project Proponent has the option to use an existing methodology as described in the previous chapter, or to propose a new methodology for ACR approval. ACR's review and approval process for new methodologies and major methodology modifications includes internal review, public consultation, and external scientific peer review.

### A. Required Information and Format

Project Proponents shall document in the new methodology all methodological choices, including emissions factors, data collection practices, statistical sampling techniques, etc.

ACR has required templates posted at [www.americancarbonregistry.org](http://www.americancarbonregistry.org) for some proposed methodologies. Where ACR has a posted template, Project Proponents must submit their proposed methodology using this template in order to reduce the time and cost of the approval process for both Project Proponent and ACR.

### B. ACR's Public Consultation and Peer Review Process

The Project Proponent begins by submitting the proposed new methodology, tool, or methodology revision to ACR. ACR evaluates the methodology, tool or revision and coordinates a process of public consultation

and anonymous scientific peer review.<sup>10</sup> Fees for peer review are charged to the Project Proponent.

After ACR reviews a new methodology, tool or revision, it communicates to the Project Proponent any corrections and/or clarifications that are immediately needed in order to proceed. If the Project Proponent elects to proceed, the Proponent addresses any corrections and clarifications identified during the ACR review and resubmits the methodology or tool.

The cost and timing for public consultation and scientific peer review process depends on the complexity, scope and quality of the methodology, tool or revision and the availability of peer reviewers. ACR first posts the methodology, tool, or revision on its website for a public consultation period (generally two weeks; may be longer depending on the scope and complexity of the methodology or tool). ACR then compiles the submitted comments and publishes a comment summary on the ACR website.

ACR then selects a team of peer reviewers to review the methodology, tool, or revision. Typically, the scientific peer review team is comprised of one lead reviewer and two supporting reviewers, though additional reviewers may be required for highly

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<sup>10</sup> The same public consultation and scientific peer review process as described here is applied to any methodologies authored by Winrock staff.

specialized areas. The reviewers are selected from a pool of potential reviewers with applicable expertise. ACR actively identifies and qualifies candidates for inclusion in this pool, and also publicly solicits applications from interested parties. Applications are reviewed for sector expertise, GHG quantification experience, and impartiality. Throughout and after the peer review process, the experts selected for each review team remain unknown to the project proponent as well as the public.

The lead reviewer orchestrates the peer review process, compiling comments and recommendations from the peer review team, and prepares a summary report. ACR reviews

and delivers to the Project Proponent a report indicating that the methodology, tool or revision is:

- Unconditionally accepted;
- Accepted conditioned on specific changes identified in the report;
- Rejected, but able to be revised and resubmitted;
- Rejected outright.

If the Project Proponent has the option to revise the methodology, tool or revision and resubmit, the lead reviewer will complete a final review of the resubmitted methodology, tool, or revision prior to ACR approving the methodology, tool, or revision.

## CHAPTER 9: VERIFICATION REQUIREMENTS

This chapter provides a general overview of ACR requirements for *ex post* verification of projects by a competent and independent third-party verifier approved by ACR. Further detail on ACR verification requirements is included in the *ACR Verification Guidelines*.

### A. Verifier Requirements

Verification is a risk-based process carried out in conformance with ISO 14064-3:2006 and ISO 14065:2007.<sup>11</sup> Verifiers shall be accredited for project verification and the scope of the applicable methodology, and verification teams shall meet the competence requirements as set out in ISO 14065:2007.

Verifier eligibility and accreditation criteria shall be as published on the ACR website. No later than December 31, 2010, all verifiers shall be accredited under, or have begun the process of accreditation under, ISO 14065 by the American National Standards Institute (ANSI).

ACR publishes a list of approved verifiers on the ACR website. ACR presumptively approves the following verifiers, provided they meet all ACR requirements and by December 31, 2010, are ANSI accredited or have begun the process of ANSI accreditation:

- Accredited Independent Entities approved under Joint Implementation;
- Designated Operational Entities approved under Clean Development Mechanism.

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<sup>11</sup> ISO 14065:2007 references to 'GHG Programme' shall mean the American Carbon Registry.

### B. Information Requirements

Prior to beginning work, the chosen verifier shall submit to ACR a Conflict of Interest Disclosure Form, describing any past working relationship between the verifier and the Project Proponent, thereby allowing ACR to ascertain verifier objectivity. The verifier may be required to provide additional documentation, per the *ACR Verification Guidelines*.

On completion of verification, the Project Proponent shall submit a verification statement to ACR. Verification statements shall be in English, describe the verification process, describe any issues raised during the verification and their resolutions, and document the conclusions reached by the verifier. The verification statement shall:

- Describe the level of assurance of the verification statement;
- Describe the objectives, scope and criteria of the verification against the ACR Standard and relevant sector standards;
- Describe whether the data and information supporting the GHG assertion were hypothetical, projected and/or historical in nature;
- State the actual number of ERTs associated with the project-specific monitoring report that the verifier has verified;
- Include the GHG Assertion, signed by the lead verifier;
- Include the verifier's conclusion on the GHG assertion, with any qualifications or limitations;

- For projects requiring Project Proponents to assess risk of reversal and apply an ACR-approved risk reversal mitigation option, include the verifier's opinion on the risk assessment and adequate risk reversal mitigation.

The verifier shall keep all documents and records in a secure and retrievable manner for at least two years after the end of the relevant project crediting period, even if it does not carry out verification throughout the project crediting period.

### C. Verification Acceptance

ACR will review and accept, request corrections or clarifications, or reject the verification statement. If ACR requests corrections or clarifications, the Project Proponent and verifier have one opportunity to address these and resubmit the verification statement.

If ACR accepts a verification statement, and has already completed all other required steps, then ACR will register the project, post the GHG Project Plan, verification statement, and other documentation to the ACR website, and issue ERTs to the Project Proponent's account.

Projects must be verified without reservation, with Project Proponents having addressed all clarifications and corrections required by the

verifier. ACR reserves the right to accept or reject verification from an approved verifier.

### D. Verification Interval

ACR requires verification at specified intervals in order to issue new ERTs. ERTs may be created and issued annually, or at the Proponent's request, more or less frequently. At each request for issuance of new ERTs, the Project Proponent must submit a verification statement from an approved verifier based on a desk audit.

No less than once every five years, Proponents must submit a verification statement based on a full verification including a field visit to the project site. The scope of this verification should include (in the case of AFOLU projects) an updated assessment of risk of reversal and an updated buffer determination, as applicable. Verification can demonstrate the project's longevity, and over time some risks may decline; thus verification offers Project Proponents the opportunity to demonstrate that the risk of reversal has decreased, allowing the Proponent to decrease its contribution to the ACR buffer pool. This process is summarized in the *ACR Forest Carbon Project Standard v2.0*.

A new verification is also required with any request to renew a project's crediting period, as detailed in Chapter 6.

# CHAPTER 10: LINKAGES TO OTHER GHG REGISTRIES AND EMISSION TRADING SYSTEMS

## A. Previous Participation in Another Voluntary GHG Registry

ACR provides Members and Project Proponents the flexibility to register eligible offsets that previously were listed on another voluntary GHG registry, such as the Climate Action Reserve or a VCS Registry, provided the offsets comply with all relevant ACR criteria, and have been de-listed from the other registry to ensure no double-counting, crediting, or selling of the same GHG reductions or removals. Offsets de-listed from another registry for registration on ACR will be screened by ACR against all relevant ACR standards and eligibility criteria and must be verified against ACR standards by an ACR-approved verifier.

Members may likewise de-list offsets from ACR, at published de-listing fees, to register them on another GHG registry.

ACR prohibits a Project Proponent from registering a given emission reduction simultaneously on ACR and on another private registry. This prohibition does not include the registry under the U.S. Department of Energy 1605(b) Program for Voluntary Reporting of Greenhouse Gases.

## B. Previous Participation in a Binding GHG System

In order to avoid double-counting of emission reductions, Proponents of projects that reduce or remove emissions from activities that are a

part of another voluntarily binding GHG emissions trading program (e.g., the Chicago Climate Exchange), or that take place in a jurisdiction or sector in which there is a binding limit established on GHG emissions (e.g., the Regional Greenhouse Gas Initiative, or in the future the State of California, the Western Climate Initiative, the Midwest Greenhouse Gas Reduction Accord, or other future state/regional programs with a binding GHG limit), shall provide evidence that the reductions and removals generated by the project have not and will not be used in the emissions trading program or for the purpose of demonstrating compliance with binding limits that are in place in that jurisdiction or sector.

If project activities take place in such a program, jurisdiction, or sector, the Project Proponent shall include in its GHG Project Plan a written statement from the GHG emissions program operator that it has cancelled from the program or national or regional cap (as applicable) a number of emissions allowances, offsets or other GHG credits equivalent to the emissions reductions and removals generated by the project so that they can no longer be used within the operator's GHG Program. Alternately, the Proponent may provide evidence of 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.

### **C. Projects in a Non-Annex I Country**

In order to prevent double-counting of GHG emission reductions or removals, Project Proponents proposing a project in a developing country (e.g., a non-Annex I country under the UN Framework Convention on Climate Change) should provide documentation that they have notified the relevant Designated National Authority (DNA) for that country of their project registration in the voluntary market, including the project's expected GHG reductions/removals.

### **D. Previous Rejection by a GHG System**

ACR may consider a project rejected by other registries, due to procedural or eligibility requirements, if the project complies with all aspects of the *ACR Standard* and any relevant sector standard. The Project Proponent for such a project shall:

- Include a statement in the GHG Project Plan that lists all other programs to which the Project Proponent has applied for registration, was rejected, and the reason(s) for the rejection. Such information shall not be considered Commercially Sensitive Information; and
- Provide the actual rejection document(s), including any additional explanation, to ACR and its verifier.

## REFERENCES

Clean Development Mechanism (CDM). List of Accepted Baseline and Monitoring Tools and Methodologies.

<http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html>

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Climate, Community & Biodiversity Alliance (CCBA). Climate, Community and Biodiversity Standards, *Project Design Standards*, Second Edition (2008). [http://www.climate-standards.org/standards/pdf/ccb\\_standards\\_second\\_edition\\_december\\_2008.pdf](http://www.climate-standards.org/standards/pdf/ccb_standards_second_edition_december_2008.pdf).

International Organization for Standardization (ISO) 14064-1:2006(E) - Greenhouse gases. Part 1: Specification with guidance at the organization level for quantification, monitoring, and reporting of greenhouse gas emission reductions or removal.

International Organization for Standardization (ISO) 14064-2:2006(E) - Greenhouse gases. Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements.

International Organization for Standardization (ISO) 14064-3:2006(E) - Greenhouse gases. Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.

International Organization for Standardization (ISO) 14065:2007(E) - Greenhouse gases. Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.

Intergovernmental Panel on Climate Change (IPCC). Fourth Assessment Report.

[http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4\\_syr.pdf](http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf)

United States Environmental Protection Agency (USEPA) Climate Leaders Program, GHG Inventory Protocol (May 2005).

<http://www.epa.gov/climateleaders/resources/inventory-guidance.html>

Voluntary Carbon Standard (VCS). Tool for Non-permanence Risk Analysis and Buffer Determination (2008) <http://www.v-c-s.org/docs/Tool%20for%20AFOLU%20Non-Permanence%20Risk%20Analysis%20and%20Buffer%20Determination.pdf>

Voluntary Carbon Standard (VCS). Guidance for forestry, agriculture and other land use projects (18 November 2008). <http://www.v-c-s.org/docs/Guidance%20for%20AFOLU%20Projects.pdf>

Voluntary Carbon Standard (VCS), Voluntary Carbon Standard 2007.1. Specification for the project-level quantification, monitoring and reporting as well as validation and verification of greenhouse gas emission reductions or removals (November 2008). [http://www.v-c-s.org/docs/Voluntary%20Carbon%20Standard%202007\\_1.pdf](http://www.v-c-s.org/docs/Voluntary%20Carbon%20Standard%202007_1.pdf)



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<http://www.ghgprotocol.org/files/ghg-protocol-revised.pdf>.

World Resources Institute and World Business Council for Sustainable Development (WRI/WBCSD), Greenhouse Gas Protocol Initiative. The GHG Protocol for Project Accounting (November 2005).  
[http://www.ghgprotocol.org/files/ghg\\_project\\_protocol.pdf](http://www.ghgprotocol.org/files/ghg_project_protocol.pdf).

## APPENDIX A: DEFINITIONS

### **Additionality**

Additionality is a test intended to ensure that project offsets are in addition to reductions and/or removals that would have occurred in the absence of the project activity and without carbon market incentives. A project proponent must demonstrate that the GHG emission reductions and removals associated with an offset project are above and beyond the “business as usual” scenario. ACR requires that every project either pass an approved performance standard and a regulatory additionality test, or pass a three-pronged test to demonstrate that the project activity is beyond regulatory requirements, beyond common practice, and faces at least one of three implementation barriers.

### **Afforestation/Reforestation (AR)**

Increasing carbon stocks by establishing, increasing and restoring vegetative cover through the planting, sowing or human-assisted natural regeneration of woody vegetation. AR is an eligible forest project activity on the ACR.

### **Agriculture, Forestry and Other Land Use (AFOLU)**

A broad category of ACR-eligible project activities that reduce GHG emissions and/or enhance GHG removals through changes in agriculture, forestry and land-use practices.

### **American Carbon Registry® (ACR)**

The American Carbon Registry® (ACR) is a voluntary, online greenhouse gas registration and emissions trading system used by ACR members to transparently register verified

emissions reductions and removals as serialized offsets; record the purchase, sale, banking, and retirement of tradable offsets, branded as Emission Reduction Tons (“ERTs”); and optionally report, in a separate account, verified GHG inventories. ACR is an enterprise of Winrock International, a U.S. nonprofit organization.

### **ACR-approved Methodology**

ACR-approved methodologies include those published by ACR after public consultation and scientific peer review; methodologies approved for use by CDM, VCS, and USEPA Climate Leaders, subject to ACR review and provided the GHG Project Plan complies with the *ACR Standard* and any relevant sector standard; modifications of ACR, CDM, VCS, and Climate Leaders methodologies, once approved by ACR; and new methodologies submitted to ACR and approved via ACR’s public consultation and scientific peer review process.

### **Annual Attestation Statement**

The statement that a Project Proponent provides annually to ACR relating to the continuance, ownership, and community and environmental impacts of a project. The Attestation is required in order to continue crediting.

### **Baseline Scenario**

The project baseline is a counterfactual scenario that forecasts the likely stream of emissions or removals to occur if the Project Proponent does not implement the project, i.e., the “business as usual” case. It also reflects the

sum of the changes in carbon stocks (and where significant, N<sub>2</sub>O and CH<sub>4</sub> emissions) in the carbon pools within the project boundary that would occur in the absence of the project activity.

### **Biological Sequestration**

The process of increasing the carbon stock of terrestrial carbon pools by changing the management of forests, rangelands, agricultural lands, and wetlands, resulting in increased sequestration of CO<sub>2</sub> through biological processes.

### **Buffer Pool**

ACR risk mitigation mechanism whereby the Project Proponent contributes an adequate number of eligible ACR offsets to a buffer pool held by ACR to replace unforeseen losses in carbon stocks. The buffer contribution is a percentage of the project's reported offsets, determined through a project-specific assessment of the risk of reversal.

### **Carbon Dioxide**

Carbon dioxide (CO<sub>2</sub>) is a chemical compound comprising two oxygen atoms bonded to a single carbon atom, and is the primary greenhouse gas implicated in global warming.

### **Carbon Dioxide-equivalent (CO<sub>2</sub>e)**

Carbon dioxide equivalence (CO<sub>2</sub>e) is a metric to compare GHGs based on their global warming potential (GWP) relative to CO<sub>2</sub> over the same timeframe. The Intergovernmental Panel on Climate Change publishes GWP values for converting all GHGs to a CO<sub>2</sub>e basis.

### **Carbon Offset**

In a voluntary market context, a carbon offset is a reduction, removal, or avoidance of GHG emissions that is used to compensate for GHG emissions that occur elsewhere. In a cap-and-trade context, offsets are "GHG reductions from projects undertaken outside the coverage of a mandatory emissions reduction system for which the ownership of verifiable GHG emission reductions can be transferred and used by a regulated source to meet its emission reduction obligations."<sup>12</sup> The ACR registers both voluntary market and pre-compliance offsets and has the same quality and technical requirements for both.

### **Carbon Pool**

A reservoir of carbon that has the potential to accumulate or lose carbon over time. Common forest carbon pools are aboveground biomass, belowground biomass, litter, dead wood, soil organic carbon, and wood products.

### **Carbon Stocks**

Carbon stocks represent the measured, estimated or modeled quantity of carbon held in a particular carbon pool. Quantifying GHG emissions and removals for terrestrial carbon offset projects involves estimating, for the baseline vs. project scenario, changes over time in carbon stocks in relevant pools.

### **Certification**

Certification is the result of a successful eligibility screening of a GHG Project Plan.

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<sup>12</sup> Adapted from Pew Center on Global Climate Change. *Climate Change 101: Cap and Trade*. <http://www.pewclimate.org/docUploads/Cap&Trade.pdf>

Certification confirms that the GHG Project Plan complies with ACR standards and, if the Project Proponent follows faithfully the GHG Project Plan during project implementation and monitoring, and secures a positive independent verification, the Proponent will ultimately be able to register the project's GHG reductions/removals on ACR.

### **Clean Development Mechanism (CDM)**

The CDM allows GHG emission reduction and removal projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one metric ton of CO<sub>2</sub>, which can be sold and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol. The CDM is intended to stimulate sustainable development and emission reductions, while giving industrialized countries flexibility in how they meet their emission reduction targets.<sup>13</sup> ACR accepts certain methodologies and tools from the CDM.

### **Climate, Community & Biodiversity Alliance (CCBA)**

CCBA is a partnership among companies, non-governmental organizations and research institutes seeking to promote integrated solutions to land management, through voluntary standards to help design and identify land management activities that simultaneously minimize climate change, support sustainable development and conserve biodiversity.<sup>14</sup> The CCB standards address only the community and biodiversity impacts of a project, not its GHG reductions or removals; CCBA

certification must therefore be paired with adherence to ACR or comparable carbon standards in order to create GHG reductions/removals.

### **Commercially Sensitive Information**

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

### **Community**

A community includes all groups of people including indigenous peoples, mobile peoples and other local communities, who live within or adjacent to the project area as well as any groups that regularly visit the area and derive income, livelihood or cultural values from the area. This may include one or more groups that possess characteristics of a community, such as shared history, shared culture, shared livelihood systems, shared relationships with one or more natural resources (forests, water, rangeland, wildlife, etc.), and shared customary institutions and rules governing the use of resources.<sup>15</sup>

### **Community and Environmental Impacts**

Community and environmental impacts are the effects, both positive and negative, that project activities may have on the socioeconomic well-being of affected communities or environmental quality in the project area. ACR requires that

<sup>13</sup> <http://cdm.unfccc.int/about/index.html>.

<sup>14</sup> <http://www.climate-standards.org/index.html>.

<sup>15</sup> CCB Standards - Project Design Standards. Second Edition (2008). Climate, Community & Biodiversity Alliance.

project activities provide net benefits to affected communities and the environment, and do not provide perverse incentives for the clearing of land to generate carbon offsets.

### **Crediting Period**

Crediting period is the finite length of time during which the project's baseline scenario is valid, and during which a project can generate offsets for registration on ACR against this baseline. The baseline must be re-evaluated in order to renew the crediting period. ACR sector standards specify crediting periods for particular project types.

### **De Minimis**

The ACR sets a *de minimis* threshold of 3% of the final calculation of emission reductions or removals. For the purpose of completeness, any decreases in carbon pools and/or increases in GHG emission sources that exceed the *de minimis* threshold must be included. Any exclusions using the *de minimis* principle shall be justified using fully documented *ex ante* calculations.

### **Eligibility Screening**

ACR screens a GHG Project Plan against the *ACR Standard* and any relevant ACR sector standard to determine whether the project meets all ACR requirements.

### **Emission Reduction Ton (ERT)**

The "ERT" is the ACR unit of exchange for tradable, project-based carbon offsets. ACR issues one ERT for each metric ton of CO<sub>2</sub>e emission reductions or removals verified against an ACR standard and methodology. ERTs issued to a project equal the project's Net Emission Reductions minus the offsets set

aside in the ACR buffer pool (unless the Project Proponent elects to contribute other ERTs to the buffer pool, or to use a different ACR-approved risk mitigation mechanism).

### **Geologic Sequestration**

Geologic sequestration is the process of capturing carbon dioxide from a stationary source and injecting it deep underground through a well, with or without enhanced oil recovery. Geologic sequestration is also called carbon capture and storage (CCS).

### **Greenhouse Gas (GHG)**

A GHG is any gaseous compound that absorbs infrared radiation in the atmosphere and contributes to the warming of the atmosphere. The primary GHGs regulated under the Kyoto Protocol are carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). The Intergovernmental Panel on Climate Change lists, and periodically updates, GHGs in its assessment reports. ACR's scope includes all GHGs (including Ozone-Depleting Substances) listed in the IPCC *Fourth Assessment Report (AR4)*, Working Group 1, Chapter 2, Table 2.14.<sup>16</sup>

### **GHG Emission Reductions and Removals**

A GHG emission reduction is the measured decrease of GHG emissions over a specified period of time relative to an approved baseline. A GHG removal is the mass of GHGs removed from the atmosphere over a specified period of time relative to an approved baseline.

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<sup>16</sup> See [http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1\\_Print\\_Ch02.pdf](http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_Ch02.pdf), page 212.

### **GHG Emission System/Trading Program**

A voluntary or regulated program that allows for trading in project-based GHG emission reductions or removals, government-issued credits, and/or allowances.

### **GHG Project Plan**

A GHG Project Plan is a document that describes the project activity, satisfies eligibility requirements, identifies sources and sinks of GHG emissions, establishes project boundaries, describes the baseline scenario, defines how GHG quantification will be done and what methodologies, assumptions and data will be used, and provides details on the project's monitoring, reporting and verification procedures. ACR requires every project to submit GHG Project Plan using an ACR-approved methodology.

### **Global Warming Potential (GWP)**

Global warming potential is a relative scale translating the global warming impact of any GHG into its CO<sub>2</sub> equivalent over the same timeframe. The Intergovernmental Panel on Climate Change periodically updates the list of GHGs and their GWP factors, based on the most recent science. ACR requires Project Proponents to calculate GHG reductions and removals based on the SAR 100-year GWPs in the IPCC *Fourth Assessment Report (AR4)*, Working Group 1, Chapter 2, Table 2.14.<sup>17</sup>

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<sup>17</sup> See page 212. The SAR 100-year values are in the fourth column from the right. Although the IPCC provides a new set of 100-year values in the second column from the right, and may again update GWP values in forthcoming assessment reports, for reasons of fungibility ACR currently requires Project Proponents to use the SAR values. This requirement may change in the future.

### **Improved Forest Management (IFM)**

Activities to reduce GHG emissions and/or enhance GHG removals, implemented on forest lands managed for wood products such as sawtimber, pulpwood, and fuelwood. Eligible IFM project activities include, but are not limited to: conversion from conventional logging to reduced impact logging, conversion of managed forests to protected forests, extending the rotation age of even-aged managed forest, conversion of low-productive forests to high-productive forests, increasing forest productivity by thinning diseased or suppressed trees, managing competing brush and short-lived forest species, preventing forest degradation through unsustainable fuelwood collection and/or illegal timber harvest, increasing the stocking of trees on understocked areas, and increasing carbon stocks in harvested wood products. IFM is an eligible forest project activity on the ACR.

### **Intergovernmental Panel on Climate Change (IPCC)**

The IPCC is “the leading body for the assessment of climate change, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide the world with a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences.”<sup>18</sup>

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<sup>18</sup> <http://www.ipcc.ch/organization/organization.htm>.



### **Leakage**

Leakage refers to a decrease in sequestration or increase in emissions outside project boundaries as a result of project implementation. Leakage may be caused by shifting of the activities of people present in the project area, or by market effects whereby emission reductions are countered by emissions created by shifts in supply of and demand for the products and services affected by the project.

### **Methodology**

A methodology is a systematic explanation of how a Project Proponent established the project baseline scenario(s), and estimates and monitors emissions reductions or removals by following scientific good practice. Good practice entails that a methodology be conservative, transparent, and thorough.

### **Methodology Deviations and Revisions**

A methodology deviation is a project-specific change to an existing ACR, CDM, VCS, or EPA Climate Leaders methodology due to a change in the conditions, circumstances or nature of a project. A methodology revision is a fundamental change in an existing ACR, CDM, VCS, or EPA Climate Leaders methodology due to a change in conditions, circumstances or general developments in knowledge. ACR approval of methodology deviations is determined through ACR's expert methodology review committee; approval of methodology revisions will require external scientific peer review.

### **Methodological Tools**

An approved component of a methodology (i.e., a stand-alone methodological module to

perform a specific task) or a calculation tool (i.e., spreadsheets or software that perform calculation tasks) that a Project Proponent uses to quantify net GHG reductions/removals or meet other ACR requirements.

### **Minimum Project Term**

The minimum length of time for which a Project Proponent must commit to maintain forest carbon project activities, including monitoring.

### **Net Emissions Reductions**

Net Emissions Reductions are GHG emission reductions or removals created by a project activity, minus the baseline scenario and any deductions for leakage.

### **New Methodology Approval**

New methodologies and methodology revisions brought to ACR by Project Proponents must be approved by ACR before being incorporated in a GHG Project Plan. The approval process includes ACR's expert review, public consultation, and external scientific peer review.

### **Ozone-Depleting Substances**

Ozone-depleting substances (ODS) include controlled substances under Annexes A, B, C and E of the Montreal Protocol.<sup>19</sup> Many ODS are also potent GHGs. The Montreal Protocol controls the consumption, production and international trade of ODS, but not emissions, and thus destruction of ODS in already existing facilities and equipment worldwide has the potential to prevent significant GHG emissions.

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<sup>19</sup> See [http://ozone.unep.org/Publications/MP\\_Handbook](http://ozone.unep.org/Publications/MP_Handbook).



### **Permanence**

GHG reductions/removals may not be permanent if a project has exposure to risk factors, including unintentional reversals (e.g., fire, flood, insect infestation etc. for terrestrial projects) and intentional reversals (e.g., landowners choosing to discontinue project activities).

### **Permanence Risk Analysis**

To account for and mitigate against the risk of reversal in some projects, ACR requires Project Proponents to conduct a risk analysis to determine the number of offsets that must be set aside in the ACR buffer pool (unless the Proponent elects a different ACR-approved risk mitigation mechanism). The risk analysis evaluates several types of risk – project, economic, regulatory, and social and environmental/natural disturbance – and must be conducted using an ACR-approved risk analysis/buffer determination tool.

### **Project Boundaries**

Project boundaries include a project’s geographical implementation area, the types of GHG sources and sinks considered, the carbon pools considered, and project duration.

### **Project Proponent**

An individual or entity that undertakes, develops, and/or owns a project. This may include the project investor, designer, and/or owner of the lands/facilities on which project activities are conducted. The Project Proponent and landowner/facility owner may be different entities.

### **Reducing Emissions from Deforestation and Degradation (REDD)**

The reduction in GHG emissions from the reduced conversion of forests to non-forest use (e.g. to cropland, grassland, settlement or development). Recognized REDD project activities include avoiding planned deforestation, avoiding unplanned/illegal deforestation, and avoiding conversion from forest to non-forest use. REDD is an eligible forest project activity on the ACR.<sup>20</sup>

### **Registry Database**

Online database that records all ACR projects and inventories, ERT issuance and transactions, and provides transparent public access to project documents and transaction information.

### **Standard**

A standard is an established norm or requirement in a formal document that establishes uniform engineering or technical criteria, methods, processes and practices. Standards may provide general guidance across all project types, such as this document, or be sector-specific. While ACR may accept methodologies and tools from other GHG programs, ACR only registers projects meeting applicable ACR standards.

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<sup>20</sup> In the international context REDD is understood to include reducing emissions from deforestation as well as improved forest management (including avoided degradation), while “REDD plus” also includes afforestation/reforestation. For consistency with current conventions ACR uses the acronym REDD, recognizing that avoided degradation can be considered a type of IFM, and includes within REDD the avoided conversion of forest to non-forest in the U.S.

### **Start Date**

ACR defines the start date for all projects other than AFOLU as the date on which the project began to reduce GHG emissions against its baseline. ACR defines the start date for AFOLU projects as the date on which the Project Proponent began the activity on project lands, with more specific guidance in the relevant ACR sector standards.

### **USEPA Climate Leaders**

Climate Leaders is a U.S. Environmental Protection Agency industry-government partnership that works with companies to develop comprehensive climate change strategies. Partner companies commit to completing a corporate inventory of their greenhouse gas emissions based on a quality management system, setting reduction goals, and annually reporting progress to EPA.<sup>21</sup> ACR accepts certain methodologies and tools from the Climate Leaders program.

### **Verification**

Verification is a systematic, independent, and documented process for the evaluation of GHG assertions against specific criteria. The verification process is intended to assess the degree to which a project complies with ACR-approved methodologies, tools, eligibility

criteria, requirements, and specifications, and has correctly quantified net GHG reductions or removals. Verification must be conducted by an independent third-party verifier.

### **Verification Statement**

A verification statement provides assurance that, through examination of objective evidence by a competent and independent third party, a GHG assertion is in conformity with applicable requirements.

### **Verifier**

A competent and independent person, persons or firm responsible for performing the verification process. To conduct verification the verifier must be ACR-approved.

### **Voluntary Carbon Standard (VCS)**

The VCS Program was initiated by The Climate Group, the International Emissions Trading Association and the World Economic Forum. The VCS program goal is to provide a robust global standard and program for approval of credible voluntary offsets. The VCS tradable voluntary offset credit is the Voluntary Carbon Unit (VCU).<sup>22</sup> ACR accepts certain methodologies and tools from the VCS.

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<sup>21</sup> <http://www.epa.gov/stateply/index.html>.

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<sup>22</sup> <http://v-c-s.org/about.html>.

## APPENDIX B: NORMATIVE REFERENCES

The *ACR Standard* is based on the foundation laid by the normative reference standards and documents listed in Table A-1. These documents assisted ACR to articulate its own requirements and specifications for the quantification, monitoring, and reporting of GHG project-based emissions reductions and removals, verification, project registration, and issuance of project-based offsets.

The *ACR Standard* builds in particular on the ISO technical specifications for GHG

accounting, GHG assertions and verification, and verifier accreditation as set forth in the ISO 14064, Parts 1-3:2006 and ISO 14065:2007 specifications. To the ISO specifications, ACR adds its own mandatory requirements as detailed in the ACR eligibility criteria, additionality determination process, sector standards, and approved methodologies and tools. In the event of conflicts between the *ACR Standard* and the ISO technical specifications or other normative references, the *ACR Standard* shall take precedence.

**Table A-1 –Normative References for the ACR Standard**

Authoring Body	Document or Standard	Relationship to ACR
Clean Development Mechanism (CDM)	<ul style="list-style-type: none"> <li>Project-level baseline and monitoring tools and methodologies</li> <li>Tool for the Demonstration and Assessment of Additionality</li> <li>GHG sources and sinks significance test</li> </ul>	ACR generally accepts approved CDM methodologies for baselines and monitoring. The CDM additionality tool informs ACR additionality tests and may assist Project Proponents in formulating additionality arguments.
Intergovernmental Panel on Climate Change (IPCC)	<ul style="list-style-type: none"> <li>Guidelines for National GHG Inventories</li> <li>Good Practice Guidance</li> <li>Fourth Assessment Report</li> </ul>	Identification of best practice and options for GHG emission inventory development; methodological guidance and primary seed document for more specific guidance materials and standards
International Standardization Organization (ISO)	<ul style="list-style-type: none"> <li>ISO 14064:2006, Parts 1-3: a set of international standards that address the quantification, reporting, and verification of GHG emissions and project reductions.</li> <li>ISO 14065:2007: verifier accreditation requirements.</li> </ul>	ISO 14064:2006 provides a foundation for the <i>ACR Standard</i> by providing technical specifications for GHG accounting and reporting for organizational inventories, projects, and verification assertions. ISO 14065:2007 specifies requirements for verifier accreditation.

Authoring Body	Document or Standard	Relationship to ACR
USEPA Climate Leaders Program	<ul style="list-style-type: none"> <li>• Set of sector-specific and cross sector guidance that addresses quantification, reporting and verification of GHG emissions reductions</li> <li>• Offset project methodologies for several specific project types</li> </ul>	Provides guidance for developing inventory baselines, accounting, and reporting, and Inventory Management Plans. Provides guidance for specific sectors and offset project methodologies; source of ACR-approved methodologies, tools and emission factors.
WRI/WBCSD GHG Protocol	<ul style="list-style-type: none"> <li>• GHG Protocol for Project Accounting (2005)</li> <li>• GHG Protocol for Corporate Inventory Accounting (2005)</li> </ul>	Guidance related to additionality – common practice test.

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