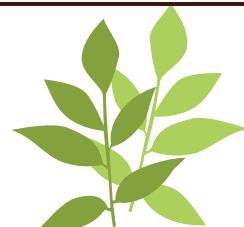




American Carbon Registry®
Trusted solutions for the carbon market



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
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 ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide-equivalent
DNA	Designated National Authority
ERT	Emission Reduction Tonne
GHG	Greenhouse Gas
GIS	Geographic Information System
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
ISO	International Organization for Standardization
NPV	Net Present Value
N ₂ 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
RPS	Renewable Portfolio Standard
SAR	Second Assessment Report of the Intergovernmental Panel on Climate Change
SF ₆	Sulfur Hexafluoride
USEPA	United States Environmental Protection Agency
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute

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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 Parts 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; and the World Resources Institute/World Business Council for Sustainable Development, for the GHG accounting guidance for projects and inventories under the GHG Protocol Initiative.

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 verified offsets, branded as Emission Reduction Tons (“ERTs”); and optionally report, in a separate account, verified GHG inventories.

ACR is a non-profit enterprise of 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 GHG measurement and monitoring methods and protocols.

ACR was founded in 1996 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 global 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 apply an ACR-approved methodology (as defined below).

The *ACR Standard v2.1* supersedes the *ACR Standard v2.0 (2010)*. Version 2.1 makes certain updates and clarifications for consistency with other ACR standards and methodologies. All essential requirements remain unchanged.

Project Proponents and other interested parties should refer to 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. 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 Chapter 7.

Chapter 8 summarizes ACR requirements for validation and verification of all projects by a competent independent third-party verifier, which are addressed in greater detail in the *ACR Verification Guideline for GHG Projects*. Chapter 9 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 GHG 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 verified offsets, branded as Emission Reduction Tons (“ERTs”), and optionally report, in a separate account, verified GHG inventories. ACR is a non-profit enterprise of Winrock International, a U.S. non-profit organization with global operations.

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- and entity-level GHG accounting;
- Commercialize innovative new methodologies;
- 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 (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). All GHGs listed in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4), Working Group 1, Chapter 2, Table 2.14 are within ACR's scope for projects and inventories. ACR's scope also includes destruction of Ozone-Depleting Substances (ODS) listed in Annexes A, B, C and E of the Montreal Protocol.¹

F. Scope: Project Types

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

- Methodologies developed by ACR and approved through the public consultation and external scientific peer review process;
- Approved methodologies listed at www.americancarbonregistry.org;
- Methodologies approved under the Clean Development Mechanism (CDM);
- Methodologies approved under other GHG programs, provided such methodologies have been approved by

ACR through the public consultation and peer review process;

- Modifications of existing methodologies, provided such modifications have been approved by ACR;
- New methodologies developed by Project Proponents and approved by ACR through the public consultation and peer review process.

ACR accepts renewable energy projects 100 MW and under and energy efficiency projects where the baselines include indirect emissions, if the project activity takes place in the developing world.²

ACR will register GHG reductions from 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 that 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, energy

¹ 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. For ODS controlled under the Montreal Protocol, see http://ozone.unep.org/Publications/MP_Handbook.

² 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.

efficiency projects that reduce natural gas use, etc.;

- The project meets additionality and other requirements of the *ACR Standard*;
- 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 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 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 CO₂ equivalent (CO₂e) using calculations based on the SAR 100-year Global Warming Potential (GWP) factors listed in the IPCC *Fourth Assessment Report* (AR4), Working Group 1, Chapter 2, Table 2.14.³

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 CO₂e.

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.

³ See 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 non-profit organization that values its reputation for integrity, Winrock International and its 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 – independent 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 a 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 Part 2 (2006) specifications. These are summarized in Table 1.

Table 1 – ACR’s Core GHG Accounting Principles

Relevance	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).
Completeness	Include all relevant GHG emissions and removals. Include all relevant information to support criteria and procedures (ISO 14064-2:2006, clause 5.3).
Consistency	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.
Accuracy	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).
Transparency	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).

Conservativeness

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).

B. Boundary Selection

GHG project boundaries include a project's geographical implementation area, the types of GHG sources and sinks considered, the carbon pools considered (if applicable), and the project duration.

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.

ACR sector standards specify the required minimum project duration for particular project types.

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-approved methodologies and tools.

D. Relevance and Completeness

Project Proponents shall apply the guidance in ISO 14064 Part 2 and 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.

Practical and cost concerns dictate that some GHG emission sources/sinks falling below an appropriate threshold may be excluded from ongoing measurement and monitoring. Project Proponents may omit from accounting:

- Any pool or emission source whose exclusion is conservative, i.e. the exclusion of which will tend to underestimate emission reductions/removal enhancements.
- If exclusion of a pool or source is not conservative, Project Proponents may apply a significance tool⁴ to determine whether the pool or source may be considered insignificant. Insignificant pools and sources may be excluded if all combined pools and sources thus excluded represent less than 3% of the *ex ante* calculation of emission reductions/removal enhancements.
- Pools and sources considered insignificant *a priori*, as stipulated in the applicable ACR sector standard, may be omitted without significance testing.

A pool or source not initially considered *de minimis* in *ex ante* calculations, but found to be *de minimis* in monitoring, may be omitted from subsequent monitoring and verification if the Project Proponent presents evidence that the pool or source is likely to remain indefinitely below the *de minimis* threshold (i.e., that the monitoring event in which an individual pool or

source was *de minimis* was not merely a temporary condition with the pool or source likely to return to significant levels).

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 $\pm 10\%$ of the mean at 90% confidence, then the reportable amount shall be the mean minus the lower bound of the 90% confidence interval.

ACR leaves to the Project Proponent the decision whether the potential additional revenues from reporting the mean without an uncertainty deduction justify the additional costs of more intensive sampling to achieve the precision target of $\pm 10\%$ of the mean at 90% confidence.

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

⁴ Such as the CDM Tool for Testing Significance of GHG Emissions in A/R CDM Project Activities, at http://cdm.unfccc.int/EB/031/eb31_repan16.pdf.

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. QA/QC procedures shall be outlined in the GHG Project Plan.

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
Start Date	<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 with appropriate documentation that GHG mitigation was an objective from project inception.</p>
Minimum Project Term	The minimum length of time for which a Project Proponent commits to project continuance, monitoring and verification.	The Minimum Project Term for specific project types is specified in the relevant ACR sector standard.

Criterion	Definition	ACR Requirement
Crediting Period	<p>Crediting Period is the finite length of time for which a GHG Project Plan is valid, and during which a project can generate offsets against its baseline scenario.</p> <p>Crediting Periods are limited in order to require Project Proponents to reconfirm, at intervals appropriate to the project type, that the baseline scenario remains realistic and credible, project activity remains additional, and GHG accounting best practice is being used. This is important since once a project has demonstrated its additionality, it is not required to do so again until applying to renew the Crediting Period.</p>	<p>The Crediting Period for non-AFOLU projects shall be seven (7) years, unless otherwise specified in the relevant ACR sector standard or approved methodology. 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 complying with all then-current ACR requirements, re-evaluating the baseline scenario, and using 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>
Real	A real offset is the result of a project action that yields after-the-fact, quantifiable and verifiable GHG emissions reductions and/or removals.	GHG reductions and removals shall exist prior to issuance. ACR will not forward issue nor forward register a projected stream of future offsets.
Direct Emissions	An emission or removal is direct if it originates from sources or sinks over which the Project Proponent has control.	Project Proponent shall own, have control, or document effective control over the GHG sources/sinks from which the emissions reductions or removals originate. If the Project Proponent does not own or control the GHG sources or sinks, the Proponent shall document that effective control exists over the GHG sources and/or sinks from which the reductions/removals originate.

Criterion	Definition	ACR Requirement
Offset Title	Offset title is a legal term representing rights and interests in an offset, a future stream of offsets, or a project delivering offsets.	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.
Land Title	Land title is a legal term representing rights and interests in project lands.	<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>
Additional	GHG emission reductions/removal enhancements are additional if they exceed those that would have occurred in the absence of the project activity and under a business-as-usual scenario.	Every project shall use <i>either</i> an ACR-approved performance standard and pass a regulatory surplus test, <i>or</i> pass 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.

Criterion	Definition	ACR Requirement
Project Baseline Scenario	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>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>
Permanent	<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>Reversals may be unintentional or intentional.</p>	<p>For projects with a risk of reversal of GHG emission reductions/removals, Project Proponents shall assess risk using an ACR-approved risk assessment tool.</p> <p>Project Proponents shall mitigate reversal risk by contributing ERTs from the project itself to the ACR buffer pool; contributing ERTs of another type or vintage to the ACR buffer pool; providing evidence of sufficient insurance coverage with an ACR-approved insurance product to recover any future reversal; or using another ACR-approved risk mitigation 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>

Criterion	Definition	ACR Requirement
Net of Leakage	Leakage is an increase in GHG emissions or decrease in sequestration outside the project boundaries that occurs because of the project action.	ACR requires Project Proponents to assess, account for, and mitigate certain types of leakage, as summarized in relevant sector standards and approved methodologies. Project Proponents must deduct leakage that significantly reduces the GHG emissions reduction and/or removal benefit of a project.
Independently Validated and Verified	<p>Validation is the systematic, independent and documented process for the evaluation of a GHG Project Plan against applicable requirements of the ACR Standard, sector standard and approved methodology.</p> <p>Verification is the systematic, independent and documented assessment by a qualified and impartial third party of GHG emission reductions and removals (i.e. of a GHG assertion).</p>	<p>ACR requires third-party validation and verification, by an ACR-approved verifier, at specified intervals in order to issue new ERTs. Verifiers must use transparent and replicable verification methods against the <i>ACR Standard</i>, relevant sector standard, and <i>ACR Verification Guideline for GHG Projects</i>.</p> <p>Verification is only required prior to issuance of ERTs (i.e. not necessarily at project registration).</p> <p>ACR requires verifiers to provide a reasonable (as opposed to limited) level of assurance that the GHG assertion is without material discrepancy. ACR's materiality threshold is $\pm 5\%$.</p> <p>While ACR internally screens and certifies all GHG Project Plans, this certification does not take the place of independent validation and verification. Validation and verification may occur simultaneously, and be conducted by the same ACR-approved verifier.</p>

Criterion	Definition	ACR Requirement
Community & Environmental Impacts	Projects have the potential to generate both positive and negative community and environmental impacts.	<p>ACR requires community and environmental impacts to be net positive overall. Project Proponents shall document in the GHG Project Plan a mitigation plan for any foreseen negative community or environmental impacts, and shall disclose in their Annual Attestations any negative environmental or community impacts or claims (by community members only, not external stakeholders) of negative environmental and community impacts.</p> <p>ACR requires community and environmental impact assessment, and provides tools that may be used to assist in that assessment, but does not mandate a particular process or tool be used.</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:

- *Either* to exceed an approved performance standard, as defined in the applicable methodology, and a regulatory additionality test;
- *Or* to pass a three-prong test of additionality as described below.

Only one of the above approaches is required.

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

1. 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.

2. 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.

Note that the common practice test, a component of the three-prong test, is distinct from a performance standard. For some but not all activities, the data used to define common practice in a particular industry, sector or region may be functionally equivalent to the data required to establish an acceptable practice-based performance standard. In such cases, Project Proponents may elect the option to demonstrate additionality by defining a practice-based performance standard and demonstrating that the project activity both

exceeds this standard and is surplus to regulations.

3. 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.

B. Performance Standard Approaches

In lieu of the three-prong test for demonstrating project-level additionality, ACR also recognizes the "performance standard" approach in which additionality is demonstrated by showing that a proposed project activity is (1) surplus to regulations, and (2) exceeds a performance standard as defined in an approved methodology.

Project Proponents must first establish regulatory additionality per the requirements in section A.1 of this chapter.

Second, under the performance standard approach projects are required to achieve a level of performance that, with respect to emission reductions or removals, or technologies or practices, is significantly better than average compared with similar recently undertaken practices or activities in a relevant

geographic area.⁵ The performance threshold may be:

- *Practice-based:* developed by evaluating the adoption rates or penetration levels of a particular practice within a relevant industry, sector or sub-sector; if these levels are sufficiently low that it is determined the project activity is not common practice, then the project activity is considered additional.
- *Technology standard:* installation of a particular GHG-reducing technology may be determined to be sufficiently uncommon that simply installing the technology is considered additional.

- *Emissions rate or benchmark* (e.g., tonnes of CO₂e emission per unit of output): with examination of sufficient data to assign an emission rate that characterizes the industry, sector, subsector, or typical land management regime, the net GHG emissions/removals associated with the project activity, in excess of this benchmark, may be considered additional and credited.

Performance standard baselines specific to particular project types, activities and regions will be detailed in the relevant sector standards and ACR-approved methodologies.

⁵ Adapted from the U.S. Environmental Protection Agency Climate Leaders offset methodologies at <http://www.epa.gov/stateply/resources/optional-module.html>.

CHAPTER 5: PERMANENCE

Permanence refers to the potential for reversal of GHG reductions and removals. The permanence issue is not relevant 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, however, have the potential for GHG reductions and removals to be reversed upon exposure to risk factors, including unintentional reversals (e.g., fire, flood, insect infestation etc. for terrestrial projects; seismic disturbances or other unanticipated releases of CO₂ 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 reversals, 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.

Project Proponents shall conduct their risk assessment using the *ACR Tool for Risk Analysis and Buffer Determination*. Only until the release of this tool, Project Proponents shall use the most updated version of the VCS Tool

for AFOLU Non-Permanence Risk Analysis and Buffer Determination.⁶

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).

The Project Proponent shall conduct this risk assessment and propose a corresponding buffer contribution (if applicable). The risk assessment, overall risk category, and proposed buffer contribution shall be included in the GHG Project Plan. ACR evaluates the proposed overall risk category and corresponding buffer contribution (if applicable). The verifier evaluates whether the risk assessment has been conducted correctly.

If no reversals occur, the project's risk category and buffer percentage (if applicable) remain unchanged for five years. An exception is in the event of a reversal, in which case the project baseline, risk category and buffer contribution (if applicable) shall be re-assessed and re-verified immediately.

⁶ See the tool at <http://www.v-c-s.org/docs/Tool%20for%20AFOLU%20Non-Permanence%20Risk%20Analysis%20and%20Buffer%20Determination.pdf> and update at <http://v-c-s.org/docs/VCS%20Program%20Update,%20AFOLU%20Risk%20Tool%20Clarification,%2013APR2010.pdf>.

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 other project. Therefore, a Project Proponent may make its buffer contribution in ERTs of any type and vintage.

Relevant sector standards (e.g., the *ACR Forest Carbon Project Standard*) 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 making a buffer contribution in project ERTs or purchased ERTs of other type and/or vintage, Project Proponents may propose an insurance product for ACR approval as an alternate risk mitigation mechanism. Insurance may be a financial product based on an actuarial analysis of project risk, considering the region, threats, mitigating factors etc., similar to the assessment done for property insurance.

The Project Proponent may provide insurance, bonds, letters of credit or other financial assurances to ACR in amounts, and in form and substance, satisfactory to ACR in ACR's sole and absolute discretion. Such financial products must assure provision of sufficient funds to ACR, in the event a project suffers an unintentional or intentional reversal of sequestered carbon, to purchase and retire a number of ERTs sufficient to offset such reversal. There may be no hidden costs, exclusions, or unanticipated liabilities to ACR. ACR must approve the proposed alternative following due diligence by ACR at the Project Proponent's or insurance provider's expense.

ACR may approve additional alternate risk mitigation mechanisms in the future. Once approved, these mechanisms may be used in lieu of buffer contributions or insurance.

CHAPTER 6: THE ACR PROJECT DEVELOPMENT TRAJECTORY

ACR requires every project submitted for registration to use an ACR-published or ACR-approved methodology. This Chapter focuses mainly on the project development steps following methodology approval – GHG Project Plan submission, screening/certification, registration, validation and verification, and issuance of ERTs – but these are described with reference to the three most common methodology scenarios (Proponent is using an already approved methodology, proposing a modification to an approved methodology, or bringing a new methodology to ACR for approval).

GHG Project Plans are screened by ACR against the *ACR Standard* and any relevant sector standard. Certification constitutes ACR's determination that the GHG Project Plan complies with all applicable requirements, but does not take the place of independent validation and verification by an ACR-approved independent third-party verifier. Validation and verification may occur simultaneously and need only occur prior to issuance of ERTs, which may be significantly later than the project Start Date and/or registration. 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 1.⁷

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

A Project Proponent using a methodology published by, or already approved by, ACR should proceed directly to the steps described below.⁸

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,⁹ against the *ACR Standard* and any relevant sector standard. This Eligibility Screening results in (a) an

⁷ 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 methodology or secure approval of a new methodology, and submit a GHG Project Plan.

⁸ ACR-approved methodologies include those approved by the CDM Executive Board.

⁹ The ACR fee schedule is posted at www.americancarbonregistry.org.

unqualified approval, or Certification, (b) requests for clarifications or corrections, or (c) rejection because the project is ineligible or does not meet requirements of the *ACR Standard*. If the ACR screening includes requests for clarifications or corrections, the Project Proponent may re-submit the GHG Project Plan for eligibility screening. One re-submittal is allowed without additional fee; subsequent re-submittals require 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 validate the GHG Project Plan and verify GHG assertions. Validation and verification may

occur simultaneously and need only occur prior to issuance of ERTs. Fees for validation and 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. See *ACR Verification Guideline for GHG Projects*.
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

Project Proponents proposing to modify an existing ACR-approved methodology should take the following steps:

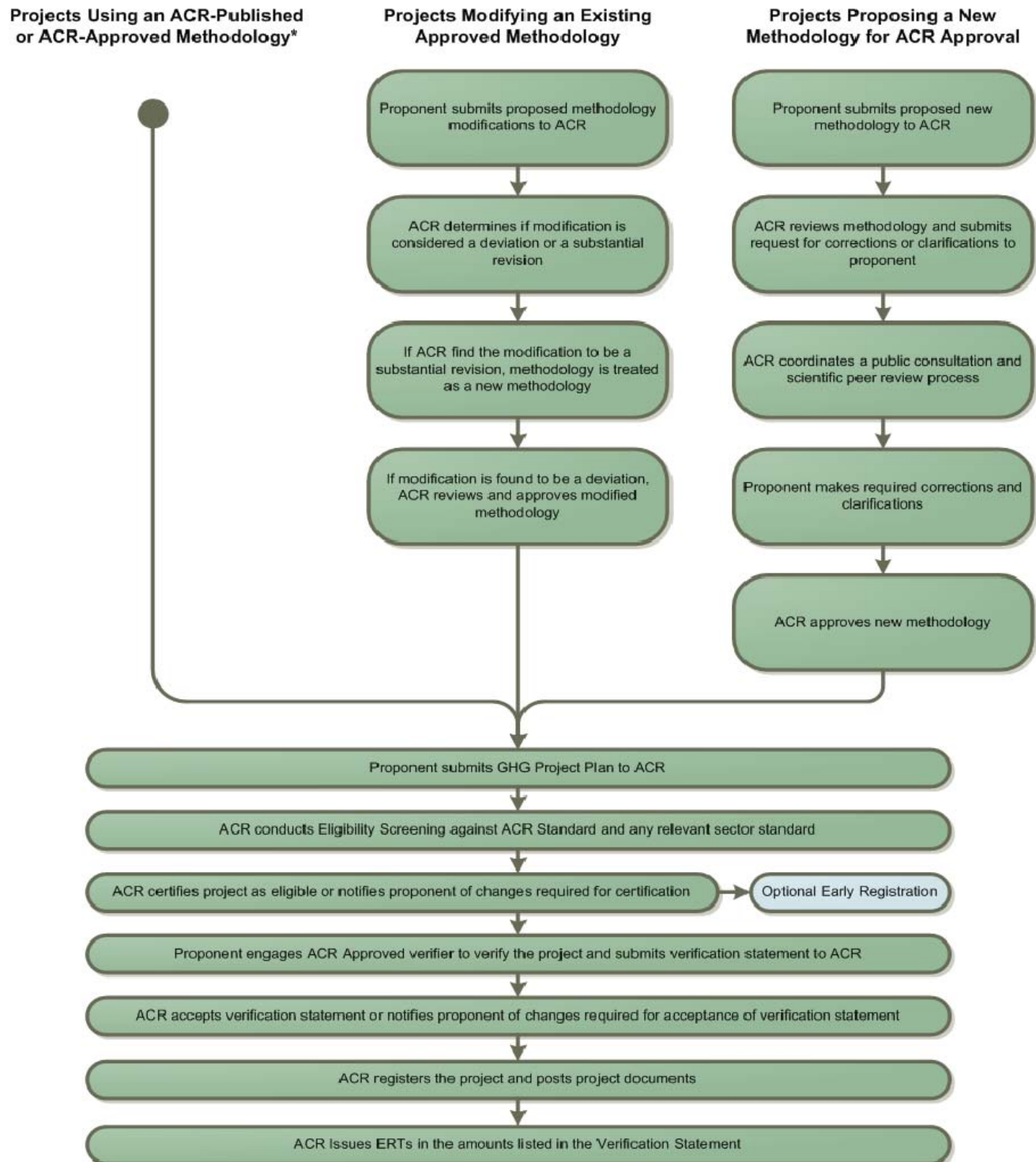
1. Project Proponent submits to ACR the proposed methodology modification. ACR and the relevant ACR Technical Committee, if one exists for the scope in question, will review the proposed modification and determine whether it represents a methodology deviation or more substantial methodology revision (see Chapter 7 for further details on steps required for approval).
2. Having secured approval of the methodology modification, the Project Proponent submits a GHG Project Plan using the approved modified 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 (or methodology developers) should take the following steps:

1. Project Proponent submits to ACR the proposed new methodology. Approval of new methodologies requires ACR's internal screening, public consultation, and scientific peer review process as detailed in Chapter 7. The public consultation and peer review process is coordinated by ACR, but methodological decisions are independent of ACR.
2. 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.
3. Steps 2 through 8 as in A.

Figure 1. The ACR Project Development Trajectory



D. Information in a GHG Project Plan

A 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 CO₂e;
- 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.

Project Proponents are strongly encouraged to use the template for GHG Project Plans

available at

www.americancarbonregistry.org.

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 finite length of time for which a GHG Project Plan is valid, and during which a project can generate offsets against its baseline scenario.

In general, the Crediting Period for non-AFOLU projects is seven (7) years, unless otherwise specified in the relevant ACR sector standard or approved methodology.

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 the project baseline;
- Demonstrating additionality against then-current regulations, common practice and implementation barriers (or against an approved performance standard and then-current regulations);
- Using ACR-approved baseline methods, emission factors, tools and methodologies in effect at the time of Crediting Period renewal;
- Undergoing validation and verification, as required.

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: 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 approved CDM methodology; request approval of a methodology developed under another GHG program; or submit a new or modified methodology to ACR for approval.

Any project proposing to use an ACR-approved methodology from another GHG program must comply with the ACR Standard and any relevant ACR sector standard.

A. GHG Measurement Tools and Methodologies

1. ACR-Published and CDM-Approved Methodologies

Methodologies published by ACR (via the public consultation and peer review process) and methodologies approved by the CDM Executive Board are approved without qualification.

Proponents using an approved CDM methodology may proceed directly to prepare a GHG Project Plan. However, Project Proponents are strongly encouraged to notify ACR so that ACR can screen the proposed CDM methodology and provide any clarifications needed for compliance with ACR standards.

2. Modifications to Existing Approved 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 should submit any proposed methodology modification to ACR for review by the relevant ACR Technical Committee. If the Technical Committee deems that the proposed modification is a minor deviation, the modification will be approved internally by the committee. If the Technical Committee deems the proposed modification is significant enough to constitute a revision, approval will require public consultation and peer review.

3. Methodologies from Other GHG Programs

Proponents proposing to use an existing methodology approved under another GHG program should first consult the list of approved methodologies at www.americancarbonregistry.org. If the proposed methodology is not included in this list, the Proponent should request review and approval of the methodology by ACR at current posted methodology review fees.

ACR may refer the issue to the relevant ACR Technical Committee, if one exists for the scope in question. The committee will assess the methodology and determine whether it is approved for use without modifications, approved contingent on certain modifications, or not approved. Approval of methodologies from programs other than CDM generally

requires ACR's public consultation and peer review process.

4. New Methodologies

New methodologies proposed to ACR for approval always require internal screening, public consultation and peer review.

B. ACR's Public Consultation and Peer Review Process

The following process is applied to new methodologies, methodology modifications deemed significant (i.e. not minor deviations), and methodologies from other GHG programs (except CDM) proposed for use on ACR. In such cases, ACR coordinates a process of internal screening, public consultation and anonymous scientific peer review. The same independent process is applied to any methodologies authored by Winrock staff. This process may involve the relevant ACR Technical Committee, if one exists for the scope in question. The process is administered by ACR, with fees charged to the Project Proponent.

1. The Project Proponent submits the proposed new methodology or revision to ACR. ACR has templates posted at 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.
2. ACR screens the new methodology or revision against ACR requirements, communicates to the Project Proponent any corrections or clarifications that are immediately needed, and informs the Proponent of its judgment whether the methodology is ready for public consultation and peer review. ACR conducts this internal review at currently published fees. ACR will consult the relevant ACR Technical Committee, if one exists for the scope in question. 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 process. The methodology is posted on the ACR website and ACR sends out a public notice inviting comments. At the conclusion of the public comment period (generally 3-4 weeks), ACR compiles all comments by methodology section and forwards a compiled report to the Project Proponent. The Proponent incorporates revisions and/or documents responses to each comment.
4. The revised methodology is provided to at least 3 independent scientific peer reviewers for a blind review process. Reviewers are selected with advice from the relevant ACR Technical Committee, if one exists for the scope in question. The lead reviewer orchestrates the peer review process, compiling comments and recommendations from the peer review team, and prepares a summary report. ACR delivers to the Project Proponent a

peer review report, organized by section of the methodology, to which the Project Proponent must respond by incorporating revisions and/or documenting justifications for the proposed approach. Timing and cost of peer review depends on the complexity, scope and quality of the methodology and the availability of peer reviewers, and the cost of peer review is borne by the Project Proponent.

5. The Project Proponent, having made corrections or clarifications required by peer reviewers or documented justifications for not incorporating changes, submits the revised methodology to ACR. Additional rounds of peer review may be necessary.
6. As needed, ACR consults the relevant ACR Technical Committee, if one exists for the scope in question, on any issues on which consensus has not been reached.
7. Once all required corrections have been made, ACR approves the new methodology and publishes it on the ACR website. The approved methodology may then be used by any Project Proponent, including but not limited to the methodology developer, in preparing GHG Project Plans and registering projects on ACR.
8. At the conclusion of the public consultation and peer review process, ACR posts process documentation – including all public comments and documented responses, and all peer review comments and documented responses – along with the methodology

or tool as originally submitted and the final approved methodology or tool.

Scientific peer review teams are typically comprised of one lead reviewer and two supporting reviewers, though additional reviewers may be required for highly 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.

C. Roles of the ACR Technical Committee(s)

ACR from time to time may establish Technical Committees for particular sectors (e.g., AFOLU), to provide independent advice to ACR on methodology acceptance, methodology modifications, selection of peer reviewers and related issues. The responsibilities of the Technical Committees include, but are not limited to:

- Review proposed new methodologies and tools submitted to ACR for approval;
- Review proposed methodology modifications to determine whether the modification constitutes a deviation that may be approved internally by the Technical Committee, or a more substantive revision that requires the

public consultation and peer review process;

- Advise ACR on the selection of appropriate peer reviewers for a proposed new methodology or methodology revision;
- Make final determinations in the event consensus on a particular methodological issue is not reached by the peer review team or between the peer reviewers and the methodology author;
- Advise ACR on continuous improvements to its AFOLU standards, including issuance of new versions at appropriate intervals;
- Advise ACR on decisions to commission new methodologies and tools using internal resources.

ACR Technical Committees are constituted via calls for applications to select the most relevant experts.

D. 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.”¹⁰

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

¹⁰ CCB Standards, Project Design Standards. Second Edition (2008).

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.¹¹ 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.¹²

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.

¹¹ See http://www.climate-standards.org/standards/pdf/ccb_standards_second_edition_december_2008.pdf.

¹² Pending agreement with CCBA.

CHAPTER 8: VALIDATION AND VERIFICATION

This chapter provides a general overview of ACR requirements for validation of GHG Project Plans, and *ex post* verification of GHG assertions, by a competent and independent third-party verifier approved by ACR. Further detail on ACR verification requirements is included in the *ACR Verification Guideline for GHG Projects*, available at www.americancarbonregistry.org.

A. Validation and Verification

ACR conducts a detailed eligibility screening of every GHG Project Plan against applicable requirements of the ACR Standard and sector standards. ACR may request clarifications and corrections before issuing its certification of a GHG Project Plan. Certification constitutes ACR's determination that the GHG Project Plan complies with all applicable requirements; it does not, however, take the place of independent validation and verification.

Validation is the systematic, independent and documented process for the evaluation of a GHG Project Plan against applicable requirements of the ACR Standard, sector standard and approved methodology.

Verification is the systematic, independent and documented assessment by a qualified and impartial third party of GHG emission reductions and removals (i.e. of a GHG assertion).

Validation and verification must be conducted by an ACR-approved independent third-party.

Validation and verification may be conducted by the same entity, and may occur simultaneously.

B. Validation and Verification Interval

Validation of the GHG Project Plan only occurs once per Crediting Period, since the GHG Project Plan remains valid for the duration of the Crediting Period.

ACR requires verification of GHG assertions 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.

Validation and verification are not required until issuance of ERTs, which for some project types may be significantly after the Start Date and/or project registration date.

C. Verifier Requirements

Verification is a risk-based process carried out in conformance with ISO 14064-3:2006 and

ISO 14065:2007.¹³ 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.

In order to conduct verification, all verifiers must be in good standing; have completed the application process described at www.americancarbonregistry.org, including submitting an application form and Verifier Attestation; document technical capabilities for each of the sectoral scopes in which the verifier seeks to conduct verifications; have submitted a project-specific Conflict of Interest Form; and be ANSI-accredited or have initiated the process of ANSI accreditation.

¹³ ISO 14065:2007 references to 'GHG Programme' shall mean the American Carbon Registry.

D. Information Requirements

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.

E. 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 (assuming the Project Proponent did not elect early registration of their project, in which case ACR may already have posted the GHG Project Plan and other documentation to the ACR website).

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.

CHAPTER 9: 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, 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

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

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<http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v5.2.pdf>.

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.

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

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)

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http://www.v-c-s.org/docs/Voluntary%20Carbon%20Standard%202007_1.pdf

World Resources Institute and World Business Council for Sustainable Development (WRI/WBCSD), Greenhouse Gas Protocol Initiative. The GHG Protocol: A Corporate Accounting and Reporting Standard – Revised Edition (March 2004). <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.

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.

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 verified offsets, branded as Emission Reduction Tons (“ERTs”); and optionally report, in a separate account, verified GHG inventories. ACR is a non-profit

enterprise of Winrock International, a U.S. non-profit organization.

ACR-approved Methodology

ACR-approved methodologies include those published by ACR after public consultation and scientific peer review, and methodologies approved for use by the CDM Executive Board. Methodologies approved by other GHG programs may be submitted to ACR for approval through the 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, N₂O and CH₄ emissions) in the carbon pools within the project boundary that would occur in the absence of the project activity.

Buffer Pool

ACR risk mitigation mechanism whereby the Project Proponent contributes an adequate number of ERTs to a buffer pool managed 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. The buffer contribution may be made in ERTs of any type and vintage.

Carbon Dioxide

Carbon dioxide (CO₂) 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 (CO₂e)

Carbon dioxide equivalence (CO₂e) is a metric to compare GHGs based on their global warming potential (GWP) relative to CO₂ over the same timeframe. The Intergovernmental Panel on Climate Change publishes GWP values for converting all GHGs to a CO₂e 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."¹⁴ 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. 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 validation and 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 CO₂, 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

¹⁴ Adapted from Pew Center on Global Climate Change. *Climate Change 101: Cap and Trade*. <http://www.pewclimate.org/docUploads/Cap&Trade.pdf>

emission reductions, while giving industrialized countries flexibility in how they meet their emission reduction targets.¹⁵ ACR accepts 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.¹⁶ 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.¹⁷

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 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 for which a GHG Project Plan is valid, and during which a project can generate offsets against its baseline scenario. The baseline must be re-evaluated in order to renew the Crediting Period. ACR sector standards specify Crediting Period for particular project types.

¹⁵ <http://cdm.unfccc.int/about/index.html>.

¹⁶ <http://www.climate-standards.org/index.html>.

¹⁷ CCB Standards - Project Design Standards. Second Edition (2008). Climate, Community & Biodiversity Alliance.

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 CO₂e 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 (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). 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 2.14.¹⁸

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.

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

¹⁸ See http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_Ch02.pdf, page 212.

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 CO₂ 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 2.14.¹⁹

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.”²⁰

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 approved methodology due to a change in the conditions, circumstances or nature of a project. A methodology revision is a fundamental change in an existing approved methodology due to a change in conditions, circumstances or general developments in knowledge. ACR approval of methodology deviations is determined by the relevant ACR Technical Committee; approval of methodology revisions requires public consultation and peer review.

¹⁹ 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.

²⁰ <http://www.ipcc.ch/organization/organization.htm>.

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 commits to project continuance, monitoring and verification.

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.

Ozone-Depleting Substances

Ozone-depleting substances (ODS) include controlled substances under Annexes A, B, C and E of the Montreal Protocol.²¹ 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.

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.

²¹ See http://ozone.unep.org/Publications/MP_Handbook.

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.

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.

Validation

Validation is the systematic, independent and documented process for the evaluation of a GHG Project Plan against applicable requirements of the ACR Standard, sector standard and approved methodology.

Verification

Verification is the systematic, independent and documented assessment by a qualified and impartial third party of GHG emission reductions and removals (i.e. of a GHG assertion). 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.

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"> Project-level baseline and monitoring tools and methodologies Tool for the Demonstration and Assessment of Additionality GHG sources and sinks significance test 	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"> Guidelines for National GHG Inventories Good Practice Guidance Fourth Assessment Report 	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"> ISO 14064:2006, Parts 1-3: a set of international standards that address the quantification, reporting, and verification of GHG emissions and project reductions. ISO 14065:2007: verifier accreditation requirements. 	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"> Set of sector-specific and cross sector guidance that addresses quantification, reporting and verification of GHG emissions reductions Offset project methodologies for several specific project types 	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"> GHG Protocol for Project Accounting (2005) GHG Protocol for Corporate Inventory Accounting (2005) 	Guidance related to additionality – common practice test.

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