



Climate

Proposal to endorse the American Carbon Registry

This document provides information to stakeholders about the American Carbon Registry, a GHG project certification program. This is done to provide stakeholders with an opportunity to evaluate whether Green-e Climate should endorse the American Carbon Registry based on the principles and criteria outlined in the Green-e Climate Standard.

General Information

Name of Program: The American Carbon Registry

Program Administrator: Winrock International

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Principle #1: Transparent Program Development

Procedures for the development of the GHG Program requirements invite broad participation by interested parties, are transparent and require public availability of information.

Organizational Development

The American Carbon Registry (ACR) is a non-profit carbon market standard and registry, and the first private voluntary greenhouse gas (GHG) registry in the U.S. To date, ACR has issued over 37.5 million Verified Emission Reductions (VERs), denominated as Emission Reduction Tons (ERTs), where one ERT represents the reduction or removal from the atmosphere equivalent to one metric ton of carbon dioxide.

In 1996, the Environmental Defense Fund founded the Environmental Resources Trust, which launched the Greenhouse Gas (GHG) Registry, now known as the American Carbon Registry. The American Carbon Registry and Environmental Resources Trust joined Winrock International in 2007. As an enterprise of Winrock International, ACR is governed at the highest level by the Winrock Board of Directors. ACR also currently engages the expertise of two standing advisory groups: the ACR Advisory Council and the ACR AFOLU Technical Committee.

ACR Advisory Council. The ACR Advisory Council provides strategic guidance to ACR on achieving its mission of harnessing the power of markets to improve the environment. Current members are listed here:

<http://americancarbonregistry.org/aboutus/acr-advisory-council>.

ACR AFOLU Technical Committee. After an open call for applications, ten high level, independent experts were selected to serve on ACR's Agriculture, Forestry and Other Land Use (AFOLU) Technical Committee. Current members are listed here: <http://americancarbonregistry.org/carbon-accounting/acr-afolu-technical-committee>.

Standard and Methodology Development

The American Carbon Registry publishes standards, methodologies, protocols and tools for GHG accounting. ACR developed the first ACR Technical Standard (v1.0) in 2009. The Standard presented the eligibility requirements for registration of all project-based carbon offsets under the ACR program, and was designed with the intent to support the development of voluntary and pre-compliance U.S. carbon markets. The requirements in ISO 14064, Parts 2-3:2006 and ISO 14065:2007 are the foundation for the ACR Technical Standard v1.0.

ACR revised its Standard twice in 2010, first in February (v2.0) and again in October (v2.1). The revisions and scope expansion built upon the original (v1.0) and referenced existing tools and methodologies from the Clean Development Mechanism (CDM), US EPA Climate Leaders Program, and the World Resources Institute/World Business Council for Sustainable Development. In addition to eligibility requirements, 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 ERTs.

ACR also publishes sector specific standards, including its Forest Carbon Project Standard (FCPS) and Nested REDD+ Standard. All sector-specific Standards are presented, prior to publication, for a public comment period of at least 30 days. The public comment period can be extended by ACR or upon request to ACR. Additionally, ACR typically holds a webinar upon the announcement of a new draft Standard to allow stakeholders to interact directly with the Standard's lead authors and technical experts and provide feedback and comments.

The following approval/adoption process is applied to new methodologies, significant methodology modifications, and methodologies from other GHG programs (except CDM) proposed for use in ACR. In such cases, ACR coordinates a three-step 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.

1. The methodology author submits the proposed new methodology or revision to ACR. ACR has templates posted at www.americancarbonregistry.org for some proposed methodology types. Where ACR has a posted template, methodology authors must submit their proposed methodology using this template.
2. ACR screens the new methodology or revision against ACR requirements, communicates to the methodology author any corrections or clarifications that are immediately needed, and informs the methodology author of its judgment whether the methodology is ready for public consultation and peer review. ACR will consult the relevant ACR Technical Committee, if one exists for the scope in question. If the methodology author elects to proceed, the author addresses any corrections and clarifications identified in the ACR review and then resubmits the methodology.
3. ACR coordinates a public consultation process. The methodology is posted on the ACR website for approximately 30 days, and ACR sends out a public notice inviting comments. At the conclusion of the public comment period, ACR compiles all comments, by methodology section, and forwards a compiled report to the methodology author. The author incorporates revisions and/or documents responses to each comment.

4. The revised methodology is provided to at least three independent scientific peer reviewers, who are subject matter experts, for a blind review process. 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 methodology author a peer review report, organized by section of the methodology, to which the author must respond by incorporating revisions and/or documenting justifications for the proposed approach.
5. The methodology author, 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 to reach consensus on all issues.
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 author, in preparing GHG Project Plans and registering projects on ACR.

Scientific peer reviewers are selected from a pool of potential reviewers with applicable expertise. ACR 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 the peer review process, the experts selected for each review team remain unknown to the methodology author as well as the public.

Public Availability of Information

All ACR Standards and methodological requirements are publically available. 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 on a dedicated webpage for each standard, sector standard, or methodology.

At present, ACR's standard practice for posting process documentation for any approved methodology or standard includes the following, as applicable:

1. Summary of public comments and responses by methodology author (in the case of methodologies) or ACR (in the case of standards);
2. Summary of Peer Review comments and methodology author responses (methodologies only);
3. Summary of changes and justification for any addenda and/or revisions;
4. Any other background information provided by the methodology author as deemed relevant;
5. ACR Technical Committee review and methodology author responses (in the case of methodology revisions approved via Technical Committee)

ACR Membership Requirements, Registry Documents, and Terms of Use are available here:

<http://americancarbonregistry.org/membership>. ACR Standards and Methodologies are available here:

<http://americancarbonregistry.org/carbon-accounting>.

Principle #2: Balance and Impartiality

Impartiality and Mechanisms to Address Other Conflicts of Interest

Winrock International's Code of Ethics includes a Conflict of Interest Policy for staff, management and board members, which provides clear criteria for what constitutes a conflict of interest and a comprehensive policy on addressing and reporting any and all conflicts. Winrock requires formal acceptance of the Conflict of Interest Policy by Board members as well as annual disclosure by staff, management and board members.

A strict conflict of interest policy is explicitly stated in Chapter 1.L of the American Carbon Registry Standard. Additionally, all third-party project verifiers are required to execute a Verifier Attestation form, which states:

"In connection with any ACR Verification, Verification Body will not conduct verification with respect to any project or corporate inventory where the Verification Body or any member of the verification team has a financial interest in the project or corporation, has played a role in developing the project or has any other conflict of interest. (Absent unusual circumstances, validating a monitoring or verification protocol and/or serving as a member of a scientific peer review process does not constitute having a role in developing a project.) Without limiting the foregoing, Verification Body will not conduct verification with respect to a project or corporate inventory if an independent observer could reasonably conclude that current or prior personal or business relationships between the Verification Body or verification team member(s) and the project, project proponent or corporation present a conflict of interest. In the verification statement, the verifier will disclose all relationships within the past three years between the Verification Body and verification team members, on the one hand, and the project, project proponent or corporate inventory being verified, on the other, and will attest that neither the Verification Body nor any member of the verification team has a conflict of interest with respect to the verification work."

Furthermore, ACR requires that all verifiers execute a project-specific conflict of interest disclosure and attestation form, reviewed and approved by ACR for each act of verification.

Dispute Resolution

Prior to approval, all projects registered with ACR must undergo screening by in-house technical experts with relevant qualifications to review such projects. This process ensures that projects are in full compliance with the ACR Standards. Stakeholders are welcome and able to submit any questions to ACR staff through an administrator email address (acr@winrock.org) that is accessed by multiple ACR staff. Inquiries are answered or distributed to other Winrock staff to gather the necessary information to respond.

Parties can also submit requests for modifications to approved methodologies and variances to methodologies and other program requirements for consideration by ACR and expert advisors, as applicable.

A formal dispute resolution procedure regarding registered projects may be instituted in the future. Currently disputes that cannot be resolved through scientific peer review or technical committees are brought to the attention of the relevant ACR staff person and escalated as appropriate, to the ACR Director or as necessary to the Winrock Vice President – Environment Group or other senior management.

Principle #3: Environmental Integrity of GHG Emissions Reductions

GHG Program requirements ensure real, verifiable, permanent and enforceable GHG emission reductions.

Reviewing and Updating Standards

There are no set schedules for updates to standards, methodologies or other documents (unless otherwise noted in the methodology in the case of performance-based standards, for example). When a revision is necessary, due to advances in scientific knowledge, carbon market best practices, legislative or regulatory changes, or other factors, ACR updates its program requirements through consultation with its members, its Advisors, Winrock staff and other

recognized technical experts. Winrock staff are called upon to review program requirements, as well as advise ACR staff on emerging research in sectors relevant to ACR program areas, to ensure that ACR Standards reference current data and information.

The transparent procedures described under Principle #1 (public consultation and scientific peer review, with public posting of all comments and responses) are applied in the case of any significant revision. The decision whether a methodology revision is significant is made by the ACR Chief Technical Officer in consultation with the relevant ACR Technical Committee. ACR will permit methodology 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.

Adherence to all Applicable Laws and Regulations

All ACR Project Proponents must execute an annual legal attestation that the project is in compliance with laws and regulations. In addition, prior to project certification Project Proponents must submit information to ACR detailing their compliance with local laws and regulations: "The Project Proponent should include the following information in the GHG Project Plan: [...] Notification of relevant local laws and regulations related to the project and a demonstration of compliance with them," (American Carbon Registry Standard p. 33).

Validation and Verification Bodies who perform validation and verification services for ACR projects must attest to the following: "Validation/Verification Body is, and at all times when performing any ACR Validation/Verification will be, an entity duly organized, validly existing, and in good standing under the laws of the jurisdiction of its formation, as well as qualified to operate in the jurisdictions in which it is operating," (Attestation of Validation/Verification Body p.3).

Validation, Monitoring, and Verification

All projects must be validated by an independent third party prior to credit issuance to ensure adherence to the ACR standards. Validation of the GHG project plan occurs once during the crediting period and may be done by the same entity as the first verification. ACR reviews and approves its Validation/Verification bodies (V/VBs) and verifiers through an application and review process.

Verification is a risk-based process carried out in conformance with ISO 14064-3:2006 and ISO 14065:2007. All verification is done on an ex-post basis: "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," (ACR Standard v2.1 Chapter 1, Section K p.10). Verification is required to be conducted by an accredited, ACR-approved, independent third-party verifier with specific technical competence for the applicable methodologies and project types. ACR V/VBs must be accredited for project validation and verification and the scope of the applicable methodology by the American National Standards Institute (ANSI) or be UNFCCC-accredited Designated Operational Entities.

ACR staff formally review and certify every GHG Project Plan as well as each corresponding Validation Report, Verification Report, Verification Statement, and V/VB Project-Specific Conflict of Interest form prior to issuing credits and assigning unique serial numbers to ensure that registered projects meet all ACR standards, are developed following an ACR approved methodology and have been appropriately validated and verified by an accredited, ACR approved independent third party.

See the American Carbon Registry Standard. Chapter 8: Validation and Verification, and; ACR published verification guidelines for ACR projects at: <http://www.americancarbonregistry.org/carbon-accounting/verification>.

Quantification and Reporting of Emissions

All projects must meet the set of requirements for the quantification, monitoring, and reporting of project-based GHG emissions reductions and removals, verification, project registration, and issuance of credits that are explicitly outlined in the ACR Standard. ACR's GHG accounting requirements are based on ISO 14064 Part 2 (2006) specifications with additional guidance from WRI/WCSBD and UNFCCC.

Specific accounting principles are covered in detail in Chapter 2 of the American Carbon Registry Standard. ACR's core GHG accounting principles include: Relevance of GHG emissions sources; Completeness of all relevant GHG emissions and removals; Consistency to enable meaningful comparisons in GHG-related information; Accuracy to reduce bias and uncertainties; Transparency to disclose sufficient and appropriate GHG-related information, and; Conservativeness to ensure that GHG emissions reductions or removals are not overestimated. All ACR projects must also follow a project specific ACR-approved methodology that includes further detailed guidance on GHG accounting, and leakage assessment requirements specific to the project type.

Leakage requirements are specified in the ACR Standard, Chapter 3 as follows: "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."

Crediting Period

The ACR crediting period for non-AFOLU projects is seven (7) years, unless otherwise specified in relevant ACR sector standard or approved methodology. Crediting periods for AFOLU projects are as follows:

- Afforestation/reforestation (AR) – 40 years
- Improved forest management (IFM) (except stop-logging IFM) – 20 years
- Reduced emissions from degradation and deforestation (REDD) and stop-logging IFM – 10 years

According to ACR, for REDD and stop-logging IFM projects changes in economic, social, and political conditions are rapid enough that allowing projects to use the same baseline for 20 years may lead to crediting of reductions that are not real. Therefore for these projects, ACR requires the baseline to be re-evaluated every 10 years as part of the requirements for renewing the Crediting Period. For other types of IFM and for AR projects, longer periods of baseline validity and longer crediting periods are more defensible.

Other methodology-specific crediting periods include:

- Conversion of High-Bleed Pneumatic Controllers in Oil & Natural Gas Systems – 10 years
- Nitrous Oxide (N₂O) Emissions Reductions through Changes in Fertilizer Management – 7 years
- Methodology for Quantifying N₂O Emissions Reductions through Reduced Use of Nitrogen Fertilizer on Agricultural Crops – 7 years
- GHG Emission Reductions through Truck Stop Electrification – 10 years
- Restoration of Degraded Deltaic Wetlands of the Mississippi Delta – 40 years

ACR does not limit the allowed number of renewals, but each renewal requires complete re-evaluation of the project and compliance to the current ACR requirements. ACR's requirements to renew the crediting period include re-

evaluating the baseline; certifying and validating a new GHG Project Plan; demonstrating additionality against then-current regulations, common practice and implementation barriers (or against an approved performance standard and then-current regulations); and using ACR-approved baseline methods, emission factors, tools and methodologies in effect at the time of Crediting Period renewal (see ACR Standard Chapter 6 Section G). As a result, according to ACR, an “unlimited” crediting period policy does not compromise the validity or integrity of a project’s GHG reductions.

Additionality

To ensure project additionality, ACR requires a regulatory test plus a performance test, or a regulatory test plus a common practice test plus a barriers or financial test (described in more detail below).

ACR also has a timing test: only non-AFOLU projects with a start date of January 1, 2000 or later and AFOLU projects with a start date of November 1, 1997 or later are eligible for registration. ACR may accept AFOLU projects with an earlier start date on a case-by-case basis. Ten ACR projects have start dates prior to January 1, 2000. The November 1, 1997 start date for AFOLU projects coincides with the date of publication of Winrock International’s Guide to Monitoring Carbon Storage in Forestry and Agroforestry Projects, which certain early-action forest carbon projects used for measurement and monitoring of carbon sequestration in anticipation of the existence of a GHG emissions reduction market.

Since afforestation/reforestation (AR) projects may involve a significant upfront cost of site preparation, planting, post planting maintenance, baseline carbon measurements, and project carbon monitoring, these projects may not begin to create significant carbon sequestration net of baseline for many years, often more than 5 years. ACR therefore allows AR projects to defer verification at their discretion, until they judge the potential revenues justify the cost, and because, as a more general matter of policy, ACR also allows validation and verification to be conducted simultaneously, it is possible that validation would also not be conducted until year 10 or 15 after the project start date. No credits will be awarded, however, until after successful validation and verification.

Every ACR project is subjected to either an ACR-approved performance standard (as defined in applicable methodology) and a regulatory surplus test, or a three-pronged test of additionality in which the project must: 1) exceed regulatory/legal requirements; 2) exceed common practice in the relevant industry sector and geographic region; and 3) overcome at least one of three implementation barriers: institutional, financial or technical. Project-specific methodologies often recommend or require the use of applicable additionality tools to evaluate the financial attractiveness of and demonstrate barriers to different baseline and project alternatives. These tests are described below.

- Regulatory Surplus (Yes=Fail; No=Pass): 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?
- Common Practice (Yes=Fail; No=Pass): In the field or industry/sector, is there widespread deployment of this project, technology, or practice within the relevant geographic area? As described in ACR Standard Chapter 4.A.2: “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. The level of penetration that represents common practice may differ between sectors and geographic areas.”

- Implementation Barriers: An implementation barrier represents any factor or consideration that would prevent the adoption of the practice/activity proposed by the Project Proponent. Project Proponents must choose at least one of three barrier assessments:
 - Financial Barriers (Yes=Pass; No=Fail): Does the project face capital constraints that carbon revenues can potentially address; or is the carbon funding reasonably expected to incentivize the project's implementation or are carbon revenues a key element to maintaining the project action's ongoing economic viability after implementation? 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.
 - Technological Barriers (Yes=Pass; No=Fail): 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? 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 Barriers (Yes=Pass; No=Fail): Does the project face significant organizational, cultural, or social barriers to implementation, and are carbon market incentives a key element in overcoming these barriers? 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.

Alternatively, ACR accepts performance standard approaches to additionality. The performance standard approach demonstrates additionality by showing that a proposed project activity is 1) surplus to regulations, and 2) exceeds a performance standard as defined in an approved methodology. Projects using ACR's performance standard additionality option 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. Under ACR, this may take one of three different forms:

1. Practice-based: developed by evaluating the adoption rates or penetration levels of a particular practice within a relevant industry, sector or subsector; if these levels are sufficiently low that it is determined the project activity is not common practice, then the project activity is considered additional.
2. Technology standard: installation of a particular GHG-reducing technology may be determined to be sufficiently uncommon that simply installing the technology is considered additional (similar to Green-e's Technology Test).
3. 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.

Permanence

To assess the risk of reversals, ACR requires Project Proponents of projects that have reversal risk, including some AFOLU 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 Proponents must conduct their risk assessment

using an ACR-approved Tool for Risk Analysis and Buffer Determination.

The output of the tool is an overall risk category for the project and a risk reversal mitigation requirement. The verifier evaluates whether the risk assessment has been conducted correctly. There are three ways approved by ACR that Project Proponents can meet their risk reversal mitigation requirement for sequestration projects.

1. Contributing ERTs from the project itself to an ACR buffer pool;
2. Contributing ERTs of another type or vintage to the ACR buffer pool; or
3. Electing to use another ACR approved product that guarantees replacement of credits for any future reversal.

Regarding the first and second options, the overall risk category resulting from the risk assessment is translated into a number of credits that must be deposited in an ACR buffer pool to mitigate the risk of reversal. The proposed buffer contribution must be included in the GHG Project Plan.

Regarding the third option, an ACR approved product may be an insurance product or other financial guarantee product based on an actuarial analysis of project risk, considering the region, threats, mitigating factors etc. The Project Proponent may provide insurance, bonds, letters of credit, guarantees or other financial assurances to ACR in amounts, and in form and substance, satisfactory to ACR. 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. ACR has thus far approved one such product, the Carbon Reduction Guarantee, which may be used in lieu of a buffer contribution. See <http://www.carbonreductioncorporation.com/>.

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.

All AFOLU Project Proponents must execute a legally-binding reversal risk mitigation agreement, which outlines the ACR terms and conditions to which the Project Proponent is committing to adhere to for reversal risk mitigation.

Principle #4: Validity and Verification of Emissions Reductions

GHG Program requirements ensure the validity of projects and proper verification of GHG emissions reductions.

Winrock International is the Program Administrator of the American Carbon Registry.

Project Assessment, Validation, and Registration

Prior to the registration and issuance of any project, ACR conducts an initial Eligibility Screening against the ACR Standard and any relevant sector standard. This Eligibility Screening results in either an unqualified approval and certification, requests for clarifications or corrections, or rejection. If the ACR screening includes requests for clarifications or corrections, the Project Proponent may re-submit the GHG Project Plan for eligibility screening.

At validation, an approved third-party V/VB systematically evaluates the approved GHG Project Plan against applicable requirements of the ACR Standard, sector standard and approved methodology. ACR requires independent third-party validation of all projects following ACR Validation and Verification Guidelines.

ACR does not have separate requirements for “small scale” projects at this time.

Project Reporting and Verification Activities

Verification is the systematic, independent and documented assessment by a qualified and impartial third party of GHG emission reductions and removals. ACR requires verification reports and statements prepared by approved verifiers for all projects requesting credit issuance. ACR staff reviews the verification report and statement. This results in either acceptance of the verification statement, acceptance contingent on requested corrections or clarifications, or rejection of the verification statement. All verification statements and reports are publicly available on the ACR website.

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. The verification interval may therefore exceed three years for non-AFOLU projects, though, according to ACR, this has not occurred to date and most non-AFOLU projects verify and issue new credits annually and in some cases more frequently.

Monitoring and reporting must take place prior to verification, and is thus implicitly required at least every five years, and possibly more frequently depending how often the Project Proponent elects to undergo desk verification for new issuance of ERTs. ACR does not require Project Proponents to report GHG reductions between verifications, but they may submit emissions reductions reports at any time. The maximum amount of time between GHG reduction reports/monitoring reports is therefore limited by the maximum amount of time allowed between verification—five years. Within this five year period, projects may quantify, monitor and verify only as frequently as they seek credit issuance.

Hypothetically there could be gaps between reports, if for example a Project Proponent elects not to verify and seek ERT issuance for certain years, or registers certain vintage years with a different GHG program. However, any gap in monitoring and verification for a forest carbon project may be treated as an intentional reversal per the ACR Forest Carbon Project Standard Chapter 5. According to ACR, this has not occurred to date.

Approval of Validators and Verifiers

Validation and verification must be conducted by an ACR-approved, independent third-party. ACR V/VBs must be accredited for project validation and verification and the scope of the applicable methodology by the American National Standards Institute (ANSI), and V/VB teams shall meet the competence requirements as set out in ISO 14065:2007. ACR requires that all V/VBs execute an Attestation of Validation/Verification Body, which defines the V/VB role and responsibilities and ensures technical capabilities and no conflicts of interest. ACR-approved V/VBs must also execute a project-specific conflict of interest form for each project validated and/or verified.

Alternatively, ACR approves Designated Operational Entities approved under the Clean Development Mechanism and Accredited Independent Entities approved under Joint Implementation, provided the entity completes the ACR verifier application form and submits all other required documentation.

A list of ACR approved V/VBs can be found at: <http://americancarbonregistry.org/carbon-accounting/verification>.

Principle #5: Disclosure and No Double Counting

The GHG Program includes measures to require disclosure and prevent double counting.

Credit Issuance and Ownership

ACR holds legal contracts with each Member. Project Proponents must submit an Attestation of Title form, upon submittal of the project and annually, indicating that they have exclusive rights to the GHG reductions or removals associated with the project and for which ACR will issue ERTs. The Attestation of Title stipulates that GHG reductions or removals for which ERTs are issued will not be registered on another system or claimed as an offset outside of ACR.

Credit Tracking and Retirement

ERTs are issued, held, transferred, and retired in an electronic registry system. All ERTs are issued with unique serial numbers, which persists as ERTs are transferred between accounts or retired. ACR's APX registry tracks the following information in the registry with the ERT serial numbers: 1. Project name and/or ID; 2. Project type; 3. Project location; 4. Year of initiation of project or project activity; and 5. Date of creation of the quantified GHG emissions reduction. The year of initiation of the project activity is available in the project documentation posted with each project.

Once a project is registered, ERTs are released into the Project Proponent's primary ERT account. ERTs can then be transferred to another ACR account holder's account; moved into one of the project account holder's other accounts; or retired. In order to transfer ERTs to another party, that party must have an approved account with ACR. ERTs may be retired to indicate that the emission reductions/removals they represent have been sold or used to satisfy a voluntary or compliance claim. ERTs are retired by transferring them to a locked retirement account, where they remain permanently, precluding further use or transfer to other parties. Each account holder has its own retirement account and subaccounts.

Information about each project registered with ACR is accessible to the public through a web-based system where owners and developers of projects record project information along with verification reports demonstrating GHG emission reductions.

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.

Projects

ACR tracks each project by geographic location, project type, Project Proponent etc, and performs a review of other project registries before projects can be registered and credits issued by ACR. Additionally, project proponents are required to disclose if the project is or has previously been listed or registered on another registry or rejected from another registry.

Projects that are taking part in another voluntary GHG program, or are subject to a binding limit established on GHG emissions (e.g., the Regional Greenhouse Gas Initiative or other future state/regional programs with a binding GHG limit), must 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. In this case, the Project Proponent must 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.

While ACR prohibits the duplicative registration of credits from the same project and vintage, a project is permitted to register on ACR at the same time as being registered on another registry provided that credits issued are for different geographic areas or vintages. ACR also allows for projects to register eligible credits that previously were listed on another voluntary GHG registry, provided the credits comply with all relevant ACR criteria, and have been de-listed or cancelled from (and not retired on) the other registry to ensure no double-counting, crediting, or selling of the same GHG reductions or removals. Credits delisted or cancelled from another registry for registration on ACR are screened against all relevant ACR standards and eligibility criteria and must be verified against ACR standards by an ACR-approved verifier. ACR registry account holders may likewise de-list or cancel offsets from ACR, at published fees, to register them on another GHG registry.

Indirect Emissions Reduction Projects

ACR accepts renewable energy projects 100 MW and under and energy efficiency projects where the baselines include indirect emissions, provided the project is located in the developing world. ACR does not register indirect emissions reductions, such as those associated with grid connected electricity generation, in the U.S. or any Annex I country. And ACR will only issue credits for direct emissions displaced or reduced by a U.S. or Annex I renewable energy/energy efficiency project activity (i.e. at a source owned and controlled by the Project Proponent) if it can be shown that the reductions are not included with corresponding renewable generation submitted toward an RPS and that RECs for that generation have been retired on behalf of the Project Proponent. For more information, see American Carbon Registry Standard, Chapter 1.F.

Additional Criteria

Project Specific Criteria

Project Eligibility

All relevant program requirements for each project category are outlined in the ACR Standards and approved project-specific methodologies, available at: <http://americancarbonregistry.org/carbon-accounting>. Currently ACR approved project types include, but are not limited to:

Methane

- Landfill methane
- Conversion of High-Bleed Pneumatic Controllers in Oil and Natural Gas Systems

AFOLU (Agriculture, Forestry and Other Land Use)

- Afforestation and Reforestation of Degraded Lands
- Improved Forest Management (IFM) on U.S. Timberlands
- Improved Forest Management (IFM) on Non-Federal U.S. Forestlands
- Deltaic Wetland Restoration
- REDD+ - Avoiding Planned Deforestation, Avoiding Unplanned Deforestation, Sustainable Forestry Management, Reduced Impact Logging
- N₂O Emission Reductions through Changes in Fertilizer Management and Reduced Use of Fertilizer on Agricultural Crops
- Livestock Waste Management
- Emission Reductions in Rice Management Systems

- Grazing Land and Livestock Management
- Avoided Conversion of Grasslands and Shrublands to Crop Production

Energy

- Renewable Energy and Energy Efficiency
- Switch from non-renewable biomass for thermal applications
- Improved cookstoves

Transport

- Emission Reductions through Truck Stop Electrification
- Fleet Efficiency

Ozone Depleting Substances

- Destruction of Ozone Depleting Substances

Also see *American Carbon Registry Standard*, Chapter 1.F. Other potentially supported ACR project types:

- Methodologies developed by ACR and approved through the public consultation and external scientific peer review process;
- 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 (non-annex 1 countries)

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 specified criteria (outlined earlier in this application).
- Indirect emissions reductions and removals as offsets from projects originating in Annex I countries.

ACR Standards

Standard	Version
American Carbon Registry Standard	2.1
Forest Carbon project Standard	2.1
ACR Nested REDD+ Standard	1.0

ACR Approved Methodologies

Methodology	Version
Conversion of High-Bleed Pneumatic Controllers in Oil and Natural Gas Systems	1.1
Improved Forest Management (IFM) on U.S. Timberlands	1.0
N ₂ O Emission Reductions through Changes in Fertilizer Management	1.0
Afforestation and Reforestation of Degraded Lands	1.0
REDD - Avoiding Planned Deforestation	1.0

Methodology	Version
Switch from non-renewable biomass for thermal applications	1.0
100-year Improved Forest Management (IFM) on U.S. Timberlands	1.0
Improved Forest Management (IFM) on Non-Federal U.S. Forestlands	1.0
REDD Methodology Modules	1.0
N ₂ O Emission Reductions through Reduced Use of Fertilizer on Agricultural Crops	1.0
Emission Reductions through Truck Stop Electrification	1.0
Restoration of Degraded Deltaic Wetlands of the Mississippi Delta	1.0

ACR Pending Methodologies *(as of January 22, 2013)*

Methodology	Version	Status
Emission Reductions in Rice Management Systems	1.0	Public comment period closed
Avoided Conversion of Grasslands & Shrublands to Crop Production	1.0	Public comment period closed
Grazing Land and Livestock Management	1.0	Public comment period open
Carbon Capture and Storage (CCS) in Oil and Gas Reservoirs	1.0	Public comment period open

Hydropower Projects

Renewable energy projects in the developing world, including hydropower, 100 MW in size and under are eligible for ACR registration. ACR excludes any projects that result in population displacement, either voluntary or involuntary. All projects must also meet the ACR requirement for community and environmental impacts, requiring community and environmental impacts to be net positive overall. Project Proponents must 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 of negative community impacts. 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.

Biomass Power Projects

Certain forest carbon activities may include a biomass energy component if they provide biomass fuel for electricity generation, heating, or transportation fuels. Such projects occupy a unique GHG accounting niche in that they may have impacts on GHG emissions and removals in terrestrial ecosystems as well as the ability to displace GHG emissions from fossil fuels. Projects that combine an eligible forest carbon project activity with biomass production must account for changes in GHG reductions and removals in forest carbon pools using the ACR Forest Carbon Project Standard and appropriate forestry methodologies. Displacement of fossil fuel GHG emissions, if eligible, must be accounted using appropriate energy sector methodologies and tools.

Apart from these projects, ACR does not have any methodologies awarding credits for GHG reductions achieved using solid or liquid biomass. Articulating a policy on life-cycle impact assessment for biomass may be the topic of future ACR policy development and methodologies, in which case sections on life-cycle impact assessment requirements would be incorporated into the relevant ACR sector standards (e.g. Forest Carbon Project Standard and possibly a future ACR agricultural sector standard).

Forestry Projects

ACR's requirements regarding prevention of reversibility or non-permanence of GHG emission reductions from eligible forestry or other biosequestration projects are described under the Permanence section of Principle #3 above.

To ensure direct sampling of biological carbon stocks and verification of emission reductions or increases from changes in biological carbon stocks, ACR requires a 90% statistical confidence interval of sampling of no more than

±10% of the mean. ACR does not require any minimum number of monitoring plots per participating landholding as long as the target is achieved for the project overall. Proponents may alternately report the mean minus the lower bound of the 90% confidence interval, if the incremental costs of achieving the target exceed expected incremental revenues. ACR leaves to the Proponent the decision whether the cost of additional sampling in order to achieve the ±10% at 90% confidence precision target is justified in order to be able to report the mean rather than lower bound.

The field visit every five years should include such measurements as the verifier requires to provide a reasonable level of assurance that the GHG assertion is without material discrepancy. ACR expects the verifier to conduct a risk-based assessment of the probability the verified GHG reductions/removals are materially different from those reported by the Project Proponent.

Following the guidance in ISO 14064 Part 2, projects must 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. Common forest carbon pools or stocks for which emissions and reductions are reported include aboveground biomass, belowground biomass, litter, dead wood, soil organic carbon, and wood products.

ACR does not stipulate required carbon pools for all forest carbon project types. Each forest carbon methodology outlines the carbon pools required for that specific project type, based on an analysis which pools are likely to decrease significantly in the baseline scenario as compared to the project scenario. Practical and cost concerns dictate that some GHG sources, sinks and pools may be excluded from ongoing measurement and monitoring. Under ACR, a GHG source, sink or pool may be excluded from accounting if any of the following is demonstrated:

1. The source, sink or pool is a priori optional per the guidance below.
2. The source, sink or pool is demonstrated to be de minimis per ACR definition, through application of a significance tool.
3. The Project Proponent presents evidence that exclusion of the GHG source, sink or pool is conservative, i.e. exclusion will underestimate rather than overestimate Net Emission Reductions. If exclusion of a source, sink or pool is not conservative, the source, sink or pool may be excluded only if all combined sources, sinks and pools thus excluded represent less than 3% of the ex ante calculation of emission reductions/removal enhancements.

The following pools and sources are considered insignificant a priori for forest carbon projects, and are therefore always optional:

1. Fertilizer application
2. Removal of herbaceous vegetation
3. Transportation emissions from vehicles used in project visits, monitoring, verification etc. This does not include emissions of harvest, processing, transport equipment. These emissions may be insignificant but are not insignificant a priori; the Proponent shall justify exclusion of such emissions.
4. Collection of wood from non-renewable sources to be used for fencing of the project area
5. Nitrous oxide (N₂O) emissions from decomposition of litter and fine roots from nitrogen-fixing trees
6. Litter

Projects which convert and/or clear native ecosystems to generate carbon offsets are not eligible in ACR. While ACR does not require that native species be used necessarily, the use of non-native species in a way that significantly impacts local biodiversity benefits would not pass ACR's test for Community and Environmental Impacts.

Additional Criteria

Referenced GHG Project Protocols or Standards

ACR generally accepts methodologies and tools approved for use by the Clean Development Mechanism (CDM) and ACR-reviewed and approved methodologies from other programs to the extent that they comply with ACR's Standards. The following list of methodologies are presumptively approved for use on ACR in addition to ACR-approved methodologies:

1. All CDM methodologies which are fully approved by the CDM Executive Board (applicability for U.S. projects must be approved in advance by ACR);
2. CDM consolidated methodology AR-ACM0001 Afforestation and Reforestation of Degraded Land - Version 5 for use on ACR for registration of U.S. domestic and international A/R projects; and
3. U.S. EPA Climate Leaders Greenhouse Gas Inventory Protocol Offset Project Methodology for Project Type: Landfill Methane Collection and Combustion.

If a Project Proponent wishes to apply a methodology not included on this list, the Proponent may submit the methodology for review by ACR's expert methodology review committee. The committee will assess the methodology and determine whether it is approved for use without modifications, approved contingent on certain modifications, or not approved.

ACR also allows Project Proponents to propose modifications to ACR-approved methodologies and tools. ACR will permit methodology 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 must submit any proposed methodology modification to ACR for review by the ACR Chief Technical Officer and 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 through a documented review process.