Green-e Climate

Proposal to endorse the Climate Action Reserve

This document provides information to stakeholders about The Climate Action Reserve, a GHG project certification program. This is done to provide stakeholders with an opportunity to evaluate whether Green-e Climate should endorse The Climate Action Reserve based on the principles and criteria outlined in the Green-e Climate Standard (www.green-e.org/getcert_ghg_standard.shtml).

The information contained on this form has been gathered by staff from the Center for Resource Solutions and does not represent a submission of The Climate Action Reserve.

General Information

Name of Program:	The Climate Action Reserve
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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 California Climate Action Registry (CCAR) was created by bill SB1771, introduced to the California State Legislature by Senator Byron Sher in 2000, to be a public benefit nonprofit corporation that would record and register voluntary greenhouse gas emission reductions made by California entities after 1990. Technical changes were made to the statute in SB527 and eventually it was signed by Governor Gray Davis on October 13, 2001.

CCAR was mandated to adopt procedures and protocols for the reporting and certification of emissions baselines and results, to maintain a record of all certified greenhouse gas emissions baselines and results, and to adopt industry-specific reporting metrics. It was also mandated to develop a list of approved providers for technical

assistance related to establishing greenhouse gas emissions baselines and goals; calculating, reporting, monitoring, and certifying greenhouse gas emissions.

CCAR launched The Climate Action Reserve in May 2008 as a national offsets program working to establish regulatory-quality standards for the development, quantification, and verification of GHG emissions reduction projects in North America. It issues carbon offset credits known as Climate Reserve Tonnes (CRTs) generated from such projects, and tracks the transaction of credits over time in a publicly-accessible system.

The Climate Action Reserve is not membership-based.

Members of the Board of Directors are:

- Chair: Linda Adams, Secretary for Environmental Protection, CalEPA
- Secretary: Kathleen Brown, Head of Public Finance for the West Region, Goldman Sachs
- CFO: Jeffrey Kightlinger, General Manager, Metropolitan Water District of Southern California
- Audit Committee Chair: Jan Schori, General Manager, SMUD
- Randy Armstrong, Environmental Issues Director, Shell Oil Company
- Steve Corneli, Senior Vice President of Market and Climate Policy, NRG Energy
- Dr. Adrián Fernández Bremauntz, President, National Institute of Ecology (INE), Mexico
- Peter Liu, Founder & Vice Chairman, New Resource Bank
- Nancy McFadden, Senior Vice President of Public Affairs, PG&E
- Peter M. Miller, Senior Scientist, NRDC
- Fabian Nuñez, Former Speaker Emeritus, California State Assembly
- Tim Profeta, Director of the Nicholas Institute for Environmental Policy Solutions and Senior Associate Dean at Duke University
- Carl Zichella, Regional Director, Sierra Club

Protocol Development

The Climate Action Reserve uses a multi-stakeholder process to develop its project protocols. This approach integrates data collection and analysis with review and input from a range of experts and stakeholders. The Climate Action Reserve staff guide the process to ensure that final protocols describe projects which produce real, additional, permanent, verified, and owned unambiguously GHG emissions reductions.

First, the Climate Action Reserve uses an internal screening process to identify candidate project types. The Climate Action Reserve encourages members of the public to submit ideas or draft protocols for consideration. Next, screened project types are either explored more fully through the development of an issues paper, or the Climate Action Reserve holds a scoping meeting to engage stakeholders in further evaluating what types of activities should be targets for protocol development. After a project type is identified, the Climate Action Reserve follows a multi-stakeholder consultation process to develop the protocol. The process begins with the establishment of a multi-stakeholder voluntary workgroup. Throughout the protocol development process, the workgroup provides expert review and direct input into the development of the project protocol.

The Climate Action Reserve then develops a draft protocol which is released to the workgroup for review and revision. Comments from the workgroup are incorporated into the draft protocol, which may go through multiple iterations of workgroup review before it is ready for public review. Next, the revised draft protocol is posted on the Climate Action Reserve's website for a 30-day public comment period. The public is notified via the Climate Action Reserve's listserv database and other venues, and reviewers are asked to submit written comments. During the 30-day public review period, the Climate Action Reserve also hosts a public workshop to solicit feedback and address concerns regarding the draft protocol in an open forum. After receiving written feedback, all comments are recorded

and addressed. A final protocol is produced, taking into account public comments and any further workgroup feedback.

Finally, the Climate Action Reserve's Board must vote to adopt each project protocol. Protocols are presented at quarterly board meetings, which are open to the public, and issues raised throughout the development process are reviewed, giving workgroup members and interested stakeholders a chance to raise any last concerns or questions.

After Board approval, the Climate Action Reserve continues to solicit, document, and respond to public feedback and comments on the current version of the project protocol. A standardized Protocol Comment Form is available at www.climateregistry.org/tools/protocols.html. The public is also welcome to contact Climate Action Reserve staff directly to discuss their comments and concerns. Public feedback and comments are assessed on an ongoing basis, and may initiate a revision to a project protocol. The Climate Action Reserve's protocols are periodically revised in light of public comments, on-the-ground experience, and technological, scientific, and regulatory developments. In addition, the Climate Action Reserve may review and update performance standards and standardized baselines to ensure they continue to effectively screen projects for additionality and accurately represent "business as usual" emissions.

Public Availability of Information

The Climate Action Reserve's Program Manual summarizes the overarching rules, policies and procedures for registering projects and creating offset credits. It also describes the process used by the Climate Action Reserve to develop protocols for determining the eligibility of, and quantifying reductions from, carbon offset projects. The Manual is posted online at: www.climateactionreserve.org/wp-content/uploads/2009/04/program-manual.pdf.

Information about new project protocols or protocols in development is available at www.climateactionreserve.org/how/protocols/in-progress/ and www.climateactionreserve.org/how/protocols/future-protocol-development/. While undergoing a revision, draft protocols for public comment and additional information about the revision can be found by visiting these pages. Each project protocol has its own dedicated webpage. There is space on the individual page of each pending protocol for public comments and staff responses to public comments to be posted. Additionally, information about protocol development remains on the Climate Action Reserve website for each approved protocol, where all public comments, previous versions and revisions can be viewed.

Principle #2—Balance and Impartiality

Impartiality of the Endorsed Program

The Climate Action Reserve is a nonprofit organization with no direct financial stake in carbon markets. The Climate Action Reserve does not develop emissions reduction or removal projects nor is it selling or buying GHG offsets or reductions.

Mechanisms to Address Other Conflicts of Interest within the Program

As described below in Principle 4, the Climate Action Reserve requires third-party verification of all GHG reductions by a Reserve-approved verifier. Once the project developer has selected a verifier, the verifier must submit a Notice of Verification Activities and Conflict of Interest Evaluation Form (NOVA/COI Form) to the Climate Action Reserve at

least 10 business days prior to the commencement of verification activities. In order for verification activities to begin, the Climate Action Reserve must determine that the potential for conflict of interest between the project developer and the verifier is low. The NOVA/COI Form is available for download at www.climateactionreserve.org/how/program/documents/.

Principle #3—Environmental Integrity

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

The Climate Action Reserve's program rules and procedures, eligibility criteria, and quantification and verification protocols are designed to ensure that GHG emission reductions certified by the Climate Action Reserve are:

- *Real*—GHG reductions must have actually occurred (not merely be projected to occur), and should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage").
- *Additional*—GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. "Business-as-usual" projects—i.e., those that would occur in the absence of a GHG reduction market—should not be eligible for registration.
- *Permanent*—In order to function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means that if verified GHG reductions are reversed within 100 years after their registration (i.e., sequestered carbon is released back to the atmosphere), an equivalent number of CRTs must be retired to compensate for the reversal.
- *Verified*—GHG reductions must be verified on an *ex-post* basis. Verification requires third-party review of monitoring data for a project to ensure the data are complete and accurate. This is discussed further below under Principle 4.
- *Owned Unambiguously*—No parties other than the registered project owner must be able to reasonably claim ownership of the GHG reductions. This is discussed further below under Principle 5.

Crediting Period

The length of a project's crediting period is defined in each project protocol. For most projects registered with the Reserve, there is a 10-year crediting period, some with the option of one renewal. For forest projects, the crediting period is 100 years.

The Climate Action Reserve uses a 100-year crediting period for forestry projects, based on a 100-year equivalence timeframe for permanence; meaning, one ton sequestered for 100 years is assumed to have the same environmental effect as reducing emissions by 1 ton. This is consistent with the Kyoto Protocol's adoption of the IPCC's Global Warming Potentials (GWPs) (Article 5.3) and of a 100-year reference timeframe (Addendum to the Protocol, Decision 2/CP.3, para. 3) for calculation of the Absolute Global Warming Potential (AGWP), or cumulative radiative forcing effect, for CO_2. Establishing a 100-year crediting period for forestry projects ensures that sequestration will be maintained until it counteracts the effect of an equivalent amount of emissions.

The Climate Action Reserve Forestry protocol requires that project owners monitor and verify a forestry project for a period of 100 years following the issuance of any one CRT (1 ton of CO_2e removed). Meaning, if a CRT is issued to a forestry project in year 99 following its start date, monitoring and verification activities must be maintained until year 199. The Reserve will only issue CRTs for GHG removals that have been verified through either site visits or desk reviews of annual monitoring reports. Forestry projects undergo a site-visit verification at least once every 6 years. Between site visits, an approved third-party verification body conducts a desk review of annual monitoring reports.

The crediting period will be terminated if the project becomes subject to a regulation, ordinance, or permitting condition that effectively requires its implementation. The crediting period will likewise be terminated if the emissions sources affected by a project become regulated (directly or indirectly) under a cap-and-trade program.

Additionality

Performance and Technology Test

The Climate Action Reserve establishes performance standards that projects must meet in order to be considered additional. These standards are established separately for each project type, and are designed to exclude non-additional projects from eligibility. For each Climate Action Reserve protocol, a threshold analysis addresses the issue of financial additionality by identifying a class of projects or activities that may be considered "business as usual," taking into account common practice and other variables. Projects that fall within this class are presumed to be financially viable without access to GHG credits, i.e., not additional. Projects outside of this class are presumed to be additional as long as they pass other additionality tests.

Regulatory Test

In all cases, projects that are required by law or regulation are excluded from the Reserve.

Timing Test

Projects implemented prior to January 1, 2001 are not eligible for registration with the Climate Action Reserve.

Projects must be submitted to the Reserve for listing no more than 6 months after their start date or they will not be eligible for registration except for when the Climate Action Reserve adopts a protocol for a new project type. When a new project protocol is adopted, the policy is as follows:

- For a period of 12 months following the adoption of any new protocol, the Climate Action Reserve will accept projects for listing whose start dates (as defined in the protocol) are no more than 24 months earlier than the date of the protocol's adoption.
- After the 12-month period following the adoption of a new protocol, the Climate Action Reserve will accept projects for listing whose start dates are no more than 6 months prior to the date on which they are submitted. A project submitted within 6 months of its start date is considered a "new" project.

The Climate Action Reserve considers a protocol to be "new" if it:

- Covers an entirely new project type not covered by any of the Reserve's existing protocols;
- Creates a wholly new category of eligible projects under an existing protocol (in which case only the new project category would qualify for a 12-month period of "early actor" eligibility); or
- Significantly expands the geographic coverage of the protocol (in which case only projects in newly covered geographic areas would qualify for a 12-month period of "early actor" eligibility).

Permanence

The underlying standard for permanence is that carbon is sequestered from the atmosphere and remains stored for a period of not less than 100 years. The Forestry Protocol ensures permanence through three mechanisms:

1. All forest owners monitor onsite carbon stocks, submit annual monitoring reports, and submit to annual third-party verification of those reports along with periodic verifier site-visits for the duration of the project life.
2. All forest owners sign a Project Implementation Agreement which obligates them to retire CRTs to compensate for reversals of GHG reductions and removals.
3. The maintenance of a "Buffer Pool" to provide insurance against avoidable reversals of GHG reductions and removals due to unavoidable causes (including natural disturbances such a fires, pest infestations, or disease outbreaks).

Forest owners are required to identify and quantify the risk of reversals from different agents based on project-specific circumstances. The resulting risk rating determines the quantity of CRTs that the project must contribute to the Reserve Buffer Pool to insure against reversals. The risk rating must be determined prior to registration, and recalculated in every year the project undergoes a verification site visit.

If a reversal lowers the forest project's actual standing live carbon stocks below its approved baseline standing live carbon stocks, the project will automatically be terminated. If the project is automatically terminated due to an "unavoidable" reversal, another project may be initiated and submitted to the Reserve for registration on the same project area. New projects may not be initiated on the same project area if the project is terminated due to an "avoidable" reversal. If the forest project has experienced a reversal and its actual standing live carbon stocks are still above the approved baseline levels, it may continue without termination as long as the reversal has been compensated.

The Urban Forestry Protocol requires:

1. Continuous annual reporting of carbon stocks for a project lifetime of 100 years.
2. Continuous replacement of dead trees at all tree sites during the project lifetime (i.e. projects must have an average net tree gain of no less than zero).
3. If reversals are not compensated for with replacement trees, they will have to be compensated for using another approved mechanism. The Reserve is developing flexible mechanisms to address reversals that will apply to all forest GHG protocols including this one.

Environmental and Social Impact

The Climate Action Reserve requires project developers to demonstrate that their GHG projects will not undermine progress on other environmental issues such as air and water quality, endangered species and natural resource protection, and environmental justice. When registering a project, the project developer must submit a regulatory attestation, which is a statement that the project is in compliance with applicable laws and is not required by any regulation. This regulatory attestation is available here: www.climateactionreserve.org/wp-content/uploads/2009/03/Regulatory_Attestation-09-16-09.pdf,

In addition, individual protocols may allow for project developers to report measures taken to avoid negative impacts. Individual protocols may also encourage GHG project developers to report on the potential environmental co-benefits of their projects, such as reductions in other air pollutants, improvements in water quality, enhancement of wildlife habitat, etc.

Principle #4—Validity of Emissions Reductions

GHG Programs ensure the validity of GHG emission reductions with respect to the program requirement

The Climate Action Reserve requires periodic third-party verification of all GHG projects, as specified in each project protocol. This provides an independent review of data and information used to produce CRTs. For every project, a third-party verifier reviews and approves documentation, monitoring data, and procedures used to estimate GHG reductions/removals. Verifiers submit a Verification Opinion and Verification Report that provide the basis for determining the quantity of CRTs that can be issued to the project. The Climate Action Reserve makes these reports publicly available. Verifiers conducting verification activities for projects listed or registered on the Climate Action Reserve must be trained by the Climate Action Reserve or its approved designees and employed by or subcontracted to an accredited verification body. A list of accredited verification bodies is available at www.climateactionreserve.org/how/verification/connect-with-a-verification-body/.

The Climate Action Reserve will only issue CRTs after a project undergoes a successful verification and the number of CRTs reported by the project developer has been checked for accuracy. As most projects require annual verification, new CRTs are issued on a yearly basis for most projects. However, new CRTs are not automatically issued to a registered project—verification of those tons must occur before CRTs are issued.

Verification Activities

Verification activities during the first year of a project include both validation and verification activities. First, the verification body must determine that the project is eligible according to the specific eligibility rules in the relevant project protocol (this is similar to project validation under other programs). Second, the verification body reviews the project-monitoring, record-keeping and quantification methodologies to assure that reported GHG reductions/removals are accurate.

All projects must go through verification within 30 months of being submitted to the Climate Action Reserve. Following initial verification and registration, all non-forest projects must be verified at least annually. Project developers may choose to verify more frequently (e.g., quarterly or biannually). Forest projects may submit annual monitoring reports in lieu of annual verification, but may not go longer than six years between verifications. CRTs are issued according to the quantity of verified reductions achieved during a verification period, regardless of the period's length.

All projects require site visits as part of project verification. This is to allow the verifier to perform an in-depth review of certain aspects of the data management systems and confirm that project activities are occurring per the submitted monitoring reports.

Approval of Verifiers

Any company or organization seeking to be qualified and eligible to conduct emissions reduction project verification activities must meet the following criteria:

- Demonstrate a thorough understanding of the Climate Action Reserve Project and Verification Protocols.
- Have a minimum of two staff members designated as Lead Verifiers.
- Lead Verifiers are required to have completed Reserve training on its project protocols, specific to the sector that the Verification Body is applying to be accredited under.
- Meet the Reserve's additional sector specific accreditation requirements, provided at: www.climateactionreserve.org/wp-content/uploads/2009/03/how-to-become-a-verifier_addtional-reserve-requirements.pdf.

By the end of 2010, all verification bodies will need to be accredited under ISO 14065 or be enrolled in the American National Standards Institute (ANSI) accreditation program to be eligible to conduct verification activities in the United States. Verification bodies that have previously been accredited by CCAR may continue to conduct verifications for the sector-specific protocols they have previously been approved for through December 31, 2009. The Reserve also requires mandatory training on the sector-specific project protocols that verifiers must complete to be eligible to conduct verifications.

Under the recently adopted Mexican Landfill and Livestock project protocols, the Reserve will also allow Clean Development Mechanism (CDM) accredited Designated Operational Entities (DOEs) in relevant Sectoral Scopes to perform verification under the Reserve until January 1, 2011, if they have met Reserve training and other requirements.

A Climate Action Reserve Verification Manual has been developed and is available online at: www.climateactionreserve.org/wp-content/uploads/2009/04/Verification-Program-Manual-6-17-09.pdf.

Principle #5—Disclosure and No Double Counting

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

Offset Ownership

Project developers must submit an Attestation of Title form indicating that they have exclusive rights to the GHG reductions or removals associated with the project and for which the Climate Action Reserve will issue CRTs. The Attestation of Title stipulates that GHG reductions or removals for which CRTs are issued will not be registered on another system or claimed as an offset outside of the Reserve. The Attestation of Title form can be found at: www.climateactionreserve.org/how/program/documents/.

Credit Tracking and Retirement

After projects are registered, CRTs are issued based on the GHG reduction/removal amount reported by the project developer and confirmed by an approved verifier. CRTs are issued only on an ex-post basis and only for GHG reductions/removals that occur within the project crediting period. CRTs are issued in vintages according to the year in which verified GHG reductions/removals occurred. CRTs are issued, held and cancelled in the Climate Action Reserve registry. All CRTs are issued with unique serial numbers. Each unique serial number contains embedded information that identifies the project type, location, developer and vintage. The unique serial number persists as CRTs are transferred between accounts or retired.

Once a project is registered, CRTs for verified GHG reductions/removals are released into the account holder's primary CRT account. CRTs can then be transferred to another Reserve account holder's account; moved into one of the project account holder's other accounts; or retired. In order to transfer CRTs to another party, that party must have an approved account with the Climate Action Reserve.

CRTs may be retired to indicate that the emission reductions/removals they represent have been used to satisfy a voluntary GHG emissions-reduction claim. The Climate Action Reserve retires CRTs 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 associated retirement account.

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

Projects

All new projects are checked against the Climate Action Reserve project database to ensure that they have not been registered before. Existing projects that have been registered with other carbon offset programs may be transferred to the Climate Action Reserve if they are determined by a Reserve-approved verifier to meet the Reserve's eligibility requirements. Such projects must submit a Project Transfer Form, available for download at www.climateactionreserve.org/how/program/documents/. The Project Transfer Form requires additional information and documentation to determine the status of the project and any offset credits issued for it under other programs. The project developer must also provide the Reserve with a signed Project Transfer Letter, which must be sent to the administrator of the other program where the project was registered, confirming that no further emission reductions/removals for the project will be verified, registered, or certified under the other program. The project must be removed from the other program's registry before it can be transferred to the Climate Action Reserve.

Additional Criteria
Referenced GHG Project Protocols or Standards

Only project protocols that are developed by the Climate Action Reserve are accepted for use in that system.

Additional Criteria
Project Specific Criteria

Project Eligibility

Approved project protocols and information about project protocols in development is available at: www.climateactionreserve.org/how/protocols/.

Adopted Protocols	Current Version	Date Issued	Development Status
Forestry	3.1	October 22, 2009	Approved
Livestock—US	2.1	August 20, 2008	Minor revision expected Fall 2009
Landfill—US	2.1	October 14, 2009	Revision expected December 2009
Urban Forestry	1.0	August 12, 2008	Minor revision expected Fall 2009
Livestock—Mexico	1.0	July 1, 2009	Approved
Landfill—Mexico	1.0	July 1, 2009	Approved
Coal Mine Methane	1.0	October 7, 2009	Approved
Organic Waste Digestion	1.0	October 7, 2009	Approved
Nitric Acid Production	1.0	December 2009	Approved

Protocols in Progress	Estimated Release	Development Status
Ozone Depleting Substances	February 2010	In development with stakeholder workgroup
Composting	June 2010	Protocol kickoff in December 2009