

Overview of the Climate Action Reserve



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History of the Climate Action Reserve



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- Non-profit organization founded as the California Climate Action Registry by state legislation in 2001
 - Encourage voluntary reporting and reductions
 - Develop protocols to track GHG emissions and reductions

Objectives of the Climate Action Reserve



- Be a model for a program that has scientific integrity but is not burdensome to use
- Show that carbon offsets can be a useful tool in addressing climate change
- Be the premier place to register carbon offset projects for North America, a recognized “seal of approval”
- Be a technical resource, not an advocacy organization

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What makes the Reserve different? *Recognition*



Recognized and Supported by:

- California Air Resources Board
- State of Pennsylvania
- Voluntary Carbon Standard (VCS)
- Leading environmental organizations:
 - Environment America
 - Natural Resources Defense Council (NRDC)
 - Union of Concerned Scientists
 - Sierra Club
 - Wilderness Society

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What makes the Reserve different? *Performance standard = Ease of use*



- Why a performance standard is different
 - The hard work is upfront
 - Assess industry practice as a whole, rather than individual project activities
- Less subjective determination to qualify
- More certainty in amount of credits
- Lower risk for developers
- Faster project processing

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What makes the Reserve different? *Separation of Roles*



- Reserve develops protocols but does not develop projects
- Does not take ownership of offsets
- 501(c)3 non-profit status
- Third-party verification
 - Consistent with international standards
 - Accreditation done by ANSI

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Distinguishing the Reserve: *Connecting Markets*



- Strong demand from the voluntary market
- Projects may be usable for compliance in federal, California, or WCI cap and trade programs
 - Regulators have yet to make decisions
 - Current versions of federal bills would allow CRTs for compliance
 - The Reserve “is considered the premier pre-compliance offset standard.” (*State of the Voluntary Carbon Markets 2009*)

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Our Protocols



- Developed with broad public input
- Goal is to create a uniform standard that is widely recognized and builds on best practice
 - We incorporate the best elements of other protocols
 - We do not accept protocols from other programs (i.e. CCX, Gold Standard, VCS, etc.)
- Designed as step-by-step instructions on project development

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Existing Protocols



- Forestry
- Methane capture from
 - Landfills
 - Livestock
 - Coal mines
 - Organic waste digestion
- N2O destruction
- Urban forestry

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Verification



- Developer selects an accredited verifier
 - Accreditation being done by ANSI with Reserve oversight
- Verifier submits conflict of interest form
- Developer hires verifier
 - Verifier makes determination how many tonnes of reduction have taken place
 - Project documents, verification report and verification opinion submitted to the Reserve

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Crediting reductions

- Developer opens an account on the Reserve
 - Reserve software is operated by APX
- The Reserve credits the project developer's account with the appropriate number of CRTs (Climate Reserve Tonnes, pronounced "carrots")
 - Project documents are visible to the public
- Each CRT has a unique serial number for tracking
 - Includes embedded information about the project, project type, vintage, and location

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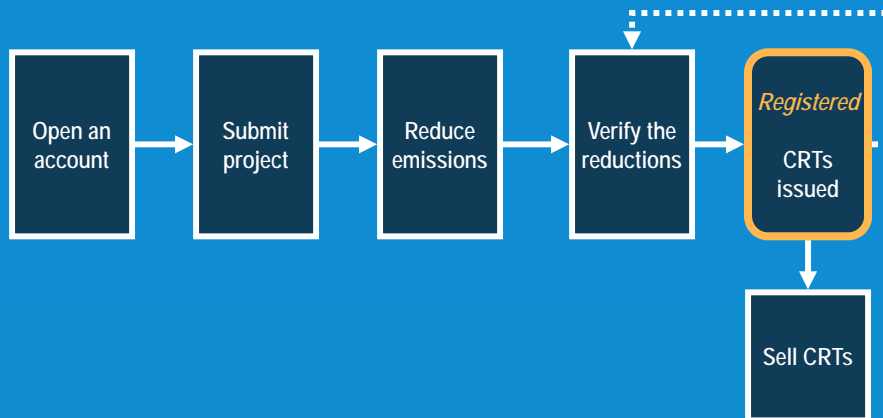
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Transferring credits

- Developer contracts to sell CRTs with an interested buyer
 - Financial transaction is outside of the system
 - Buyer must have an account on the system or seller can retire them on behalf of buyer
- Developer instructs the system to transfer the CRTs into the buyer's account
- Buyer can hold them, retire them or transfer them to someone else
- CRT futures can now be traded on the CCFE

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The Reserve process



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Forest Project Types



- Improved Forest Management
 - Activities that increase forest-based sequestration and/or decrease emissions
- Reforestation
 - Less than 10% canopy cover for at least 10 years, or following a significant natural disturbance that has removed at least 20% of the trees
- Avoided Conversion
 - Removing a significant conversion threat to non-forest use and dedicating the forest to continued forest cover.

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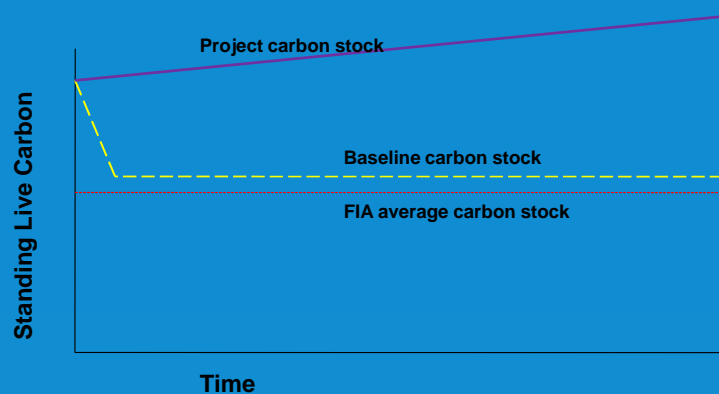
Baseline for IFM Projects



- Project-level modeling defines a baseline that:
 - Exceeds legal requirements
 - Is financially viable
 - Does not follow a period of rapid depletion
 - Does not decline below regional measures of common practice
- Protocols provide standardized guidance for modeling
- Project stocks above baseline are credited

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Baseline for IFM Projects



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Baseline for IFM Projects on Public Lands



- Quantification of baseline using an historic (10-year) review of:
 - Retention standards
 - Rotations
 - Other practices determined by statute, regulation, policy, and budgets
- The review provides the basis for forward modeling. Project stocks above forward-projected baseline are addition

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Baseline for Avoided Conversion Projects



- Based on likely impact of conversion as substantiated by an appraisal
- Other required criteria include:
 - Suitability of project area for conversion
 - Legal permissibility of conversion
 - Assessment of risk of conversion as determined by disparity in value from appraisal

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Baseline for Reforestation Projects



- Two scenarios:
 - Project area has been out of forest cover for over ten years
 - Project area has undergone significant natural disturbance and the landowner is not required by law to reforest
- Baseline is modeled future carbon stocks without project activity
- Economic evaluation required to show that reforestation activity would not be business as usual

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Crediting and Additionality



- 100 - year crediting period
- All projects must exceed all legal requirements, including any requirements to:
 - Reforest
 - Buffer watercourses
 - Protect for endangered species
 - Manage under a binding deed restriction or conservation easement
- Voluntary agreements that can be rescinded are not considered legal requirements

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Start date



- Projects must be generally be submitted within six months of start date of project
- Projects with start dates as early as 2001 can be accepted if they are submitted by March 1, 2010.

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Sustainability Requirements



- Manage for diverse native trees with multiple age classes
 - Even age harvesting max 40-acre units
 - No more than 40% of project area can be in age classes less than 20 years
- Demonstrate long-term sustainability
- Manage for structural elements
 - Lying and standing dead wood

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Permanence



- Permanence defined in protocol as 'out of atmosphere for at least 100 years'
- Two kinds of reversals must be addressed:
 - Unavoidable: fire, pests, disease, wind, etc.
 - Avoidable: over-harvesting, financial failure

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Unavoidable Reversals



- Verifier determines percentage risk of various unavoidable reversals
- Pay into a buffer (i.e. insurance) pool according to level of risk
- In event of a reversal, CRTs will be retired from the pool equal the amount released
- Result: CRTs travel with insurance. Buyer bears no risk in case of reversal

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Avoidable Reversals

- These must be compensated by the project owner
 - Must surrender CRTs (either from the project or purchased) equal to CRTs reversed
- Performance is guaranteed by a Project Implementation Agreement (PIA)
 - This is a long-term contract signed between the project developer and the Reserve, stating obligations in case of a reversal
 - PIA is recorded with the property title

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Current Statistics

- Reserve launched in May 2008
- Account-holders: **194**
- Registered or listed projects: **145**
 - Located in **40** states
 - 20** forest projects submitted
- CRTs issued: **~2.3 million**
- Recent average price: **\$6.80/tonne**
 - According to *New Energy Finance, Global Carbon Quarterly*, September 2009

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