

California Compliance Offsets Workshop

San Francisco, CA

April 16, 2013



CLIMATE
ACTION
RESERVE

Kristen Gorguinpour
Joel Levin
Climate Action Reserve



CLIMATE
ACTION
RESERVE

Workshop Agenda

- 9:00 AM** **Welcome and Introductions**
- 9:15** **Introduction to the Reserve and California Cap-and-Trade**
Joel Levin, Climate Action Reserve
- 9:45** **Compliance Offsets and the Role the Reserve as an Accredited Offset Project Registry**
Kristen Gorguinpour, Climate Action Reserve
- 10:45** **The Market for Compliance Offsets in California**
Lenny Hochschild, Evolution Markets
- 11:15** **Question & Answer**
- 11:30** **Conclusion of Workshop**



CLIMATE
ACTION
RESERVE

Legal Disclaimer

Some of the content of this presentation is based on the Climate Action Reserve's understanding of the California Cap and Trade Regulation. As the implementation of the Regulation is the responsibility of the California Air Resources Board, you should be aware that anything presented here may be interpreted or applied differently by the Board.

Moreover, this presentation does not constitute legal advice. Information presented here should be regarded as guidance and does not have a legally binding effect.



CLIMATE
ACTION
RESERVE

Background

- Chartered by California law in 2001 at the California Climate Action Registry
 - Previously known as California Climate Action Registry
 - Mission is to encourage voluntary actions to reduce emissions and to have such emissions reductions recognized
- In 2008, renamed and changed focus to creating a North American carbon offsets program
- Balances business, government, and environmental interests



CLIMATE
ACTION
RESERVE

The Reserve: Who We Are and What We Do

- Accredited offset project registry (OPR) under the California Cap-and-Trade Program
 - Mission: to promote the reduction of greenhouse gas emissions by pioneering credible market-based policies and solutions
- Serve compliance and voluntary carbon markets
- Reputation for integrity and experience in providing best-in-class registry services for voluntary and compliance offset markets

Board of Directors



CLIMATE
ACTION
RESERVE

- **Linda Adams,** California EPA (ret.) - Chairman of the Board
- **Peter Miller,** NRDC – Board Secretary
- **Jeff Kightlinger,** Metropolitan Water District – Board Treasurer
- **Randy Armstrong,** Shell Oil Company
- **Steve Corneli,** NRG Energy
- **Cynthia Cory,** California Farm Bureau Federation
- **Dr. Francisco Barnes,** National Institute of Ecology (Mexico)
- **Peter Liu,** New Resource Bank
- **James Mack,** British Columbia Ministry of Environment
(Canada)
- **Betsy Moler,** Federal Energy Regulatory Commission (ret.)
- **Tim Profeta,** Nicholas Institute at Duke University
- **Jan Schori,** Sacramento Municipal Utility District (ret.)
- **Stephan Schwartzman,** Environmental Defense Fund
- **Jason Clay,** World Wildlife Fund (WWF)



CLIMATE
ACTION
RESERVE

Objectives of the Reserve

- Encourage actions to reduce greenhouse gas emissions
- Show that carbon offsets can be a useful tool in addressing climate change
- Model an offset program that has environmental integrity but is not burdensome to use
- Create value for the North American carbon market
- Provide technical resources on offset standards and policy



CLIMATE
ACTION
RESERVE

Serving Multiple Markets

Compliance Market:

- Compliance buyers under California's Cap-and-Trade
- CEQA compliance

Voluntary Market:

- Voluntary corporate buyers
- LEED Certification (USGBC)
- Retail and individual buyers

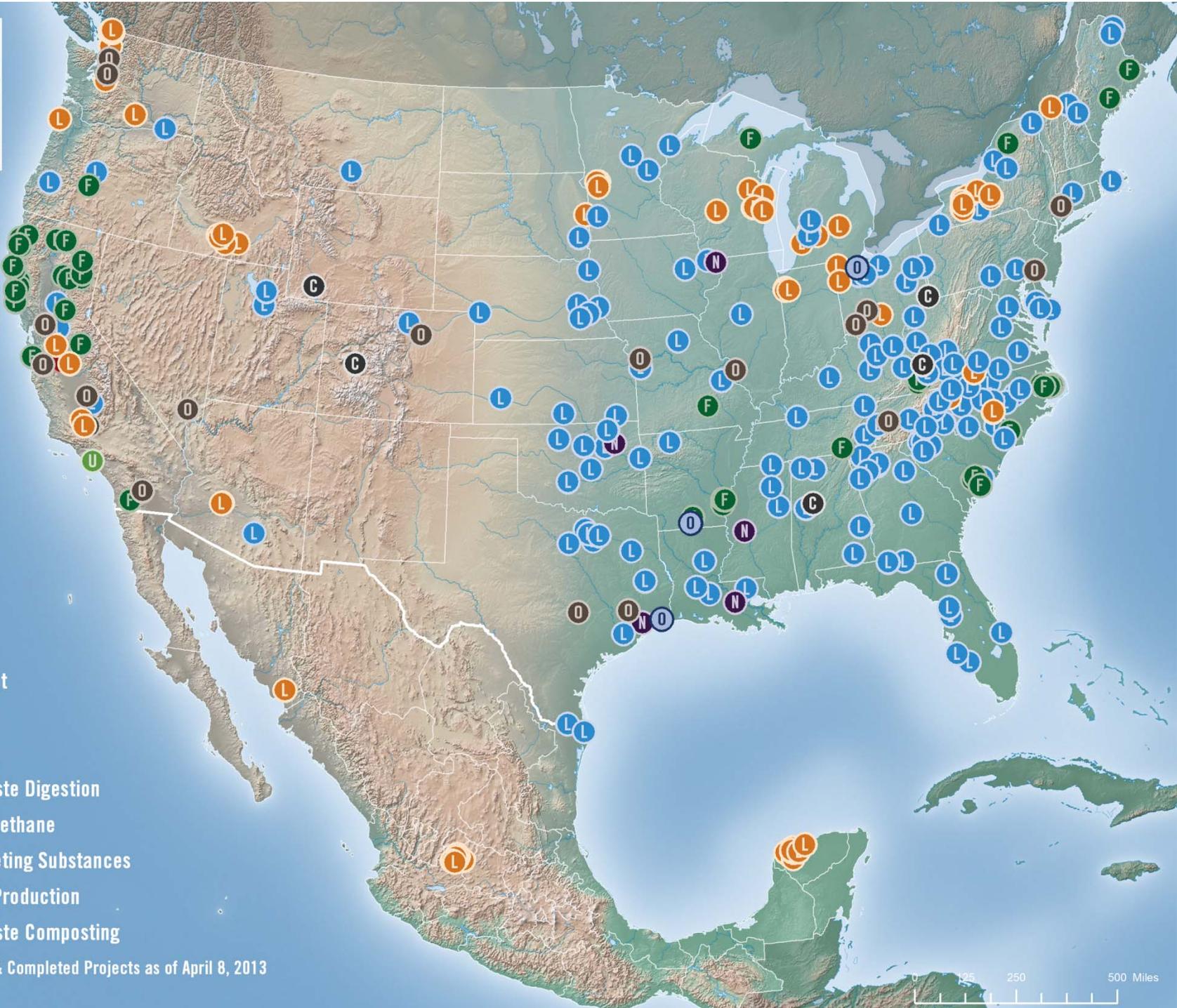
Reserve Protocols



CLIMATE
ACTION
RESERVE

- Forestry (Reforestation, Improved Forest Management, Avoided Conversion)
- Urban Forestry
- Livestock Methane Capture
- Ozone Depleting Substances (US)
- Landfill Gas Capture
- Organic Waste Digestion
- Coal Mine Methane
- Nitric Acid Production
- Organic Waste Composting
- Rice Cultivation
- Nitrogen Management
- International: Mexico Livestock and Landfill; Article 5 ODS

Compliance
Eligible



CLIMATE ACTION RESERVE

- F** Forest
- U** Urban Forest
- L** Livestock
- L** Landfill
- O** Organic Waste Digestion
- C** Coal Mine Methane
- O** Ozone Depleting Substances
- N** Nitric Acid Production
- O** Organic Waste Composting

Listed, Registered & Completed Projects as of April 8, 2013



CLIMATE
ACTION
RESERVE

Reserve Stats

CRTs registered 34.7 million

**Compliance-Eligible
CRTs registered** 12.9 million

CRTs retired 5.8 million (~ 17%)

Account holders 349

Projects submitted 496

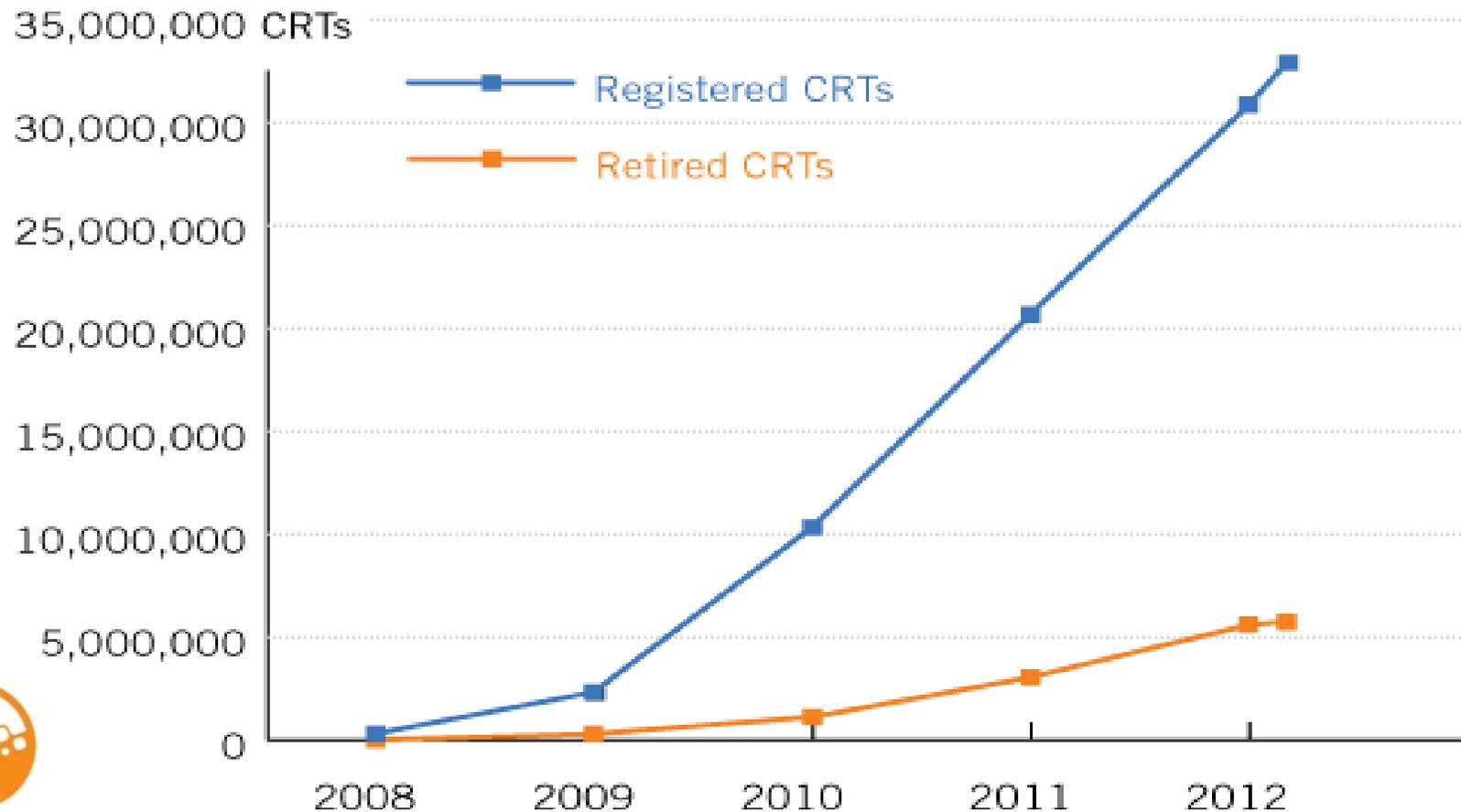
Registered 177

Completed 19

**U.S. States with
Projects** 45

REGISTERED AND RETIRED CARBON OFFSETS IN THE CLIMATE ACTION RESERVE PROGRAM

From 2008 through February 2013, the Climate Action Reserve registered 32,876,824 Climate Reserve Tonnes (CRTs) and retired 5,728,871 CRTs.



CLIMATE
ACTION
RESERVE



CLIMATE
ACTION
RESERVE

California Cap-and-Trade

- State-wide cap on GHG emissions
- Program began Jan 1, 2013 and runs through 2020
 - Divided into three compliance periods
 - Narrow Scope for CP1: Large industrial emitters (power plants, refineries, cement plants, large manufacturers, etc.)
 - Broad Scope, beginning in 2015: 85% of economy-wide emissions
- Covered Entities must have compliance instruments equal to their emissions for each year
 - Allowances: most allocated at the beginning, but auctioned in future years; issuance reduced annually
 - Offsets: can be used in place of allowances for up to 8% of emissions

California Carbon Market: 2013-2020



CLIMATE
ACTION
RESERVE

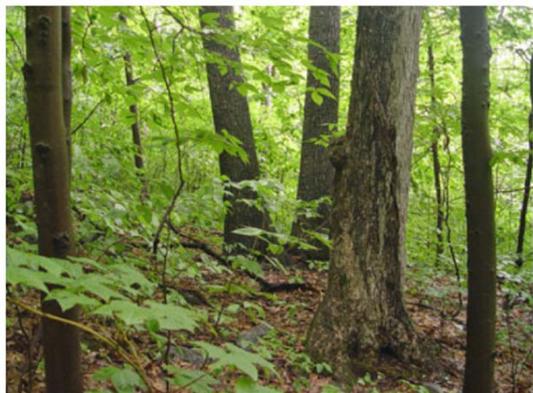
Compliance Period	Year	Allowance Budget (mt CO ₂ e)*	Max Offset Demand (8%)
First (narrow scope)	2013	162,800,000	26,800,000
	2014	159,700,000	
Second (broad scope)	2015	394,500,000	91,784,000
	2016	382,400,000	
	2017	370,400,000	
Third (broad Scope)	2018	358,300,000	83,104,000
	2019	346,300,000	
	2020	334,200,000	

* Source: California Air Resources Board (CARB)



CLIMATE
ACTION
RESERVE

A GUIDE TO COMPLIANCE OFFSET PROJECT TYPES: FOREST, ODS, LIVESTOCK





CLIMATE
ACTION
RESERVE

Forest Offset Projects – Key Elements

- Applies Throughout the United States
 - Both Private and Public Lands (excludes federal)
- Three Project Types:
 - Reforestation
 - Improved Forest Management
 - Avoided Conversion
- Standardized Accounting Methods
- Requirement for Permanence
- Sustainability Requirements



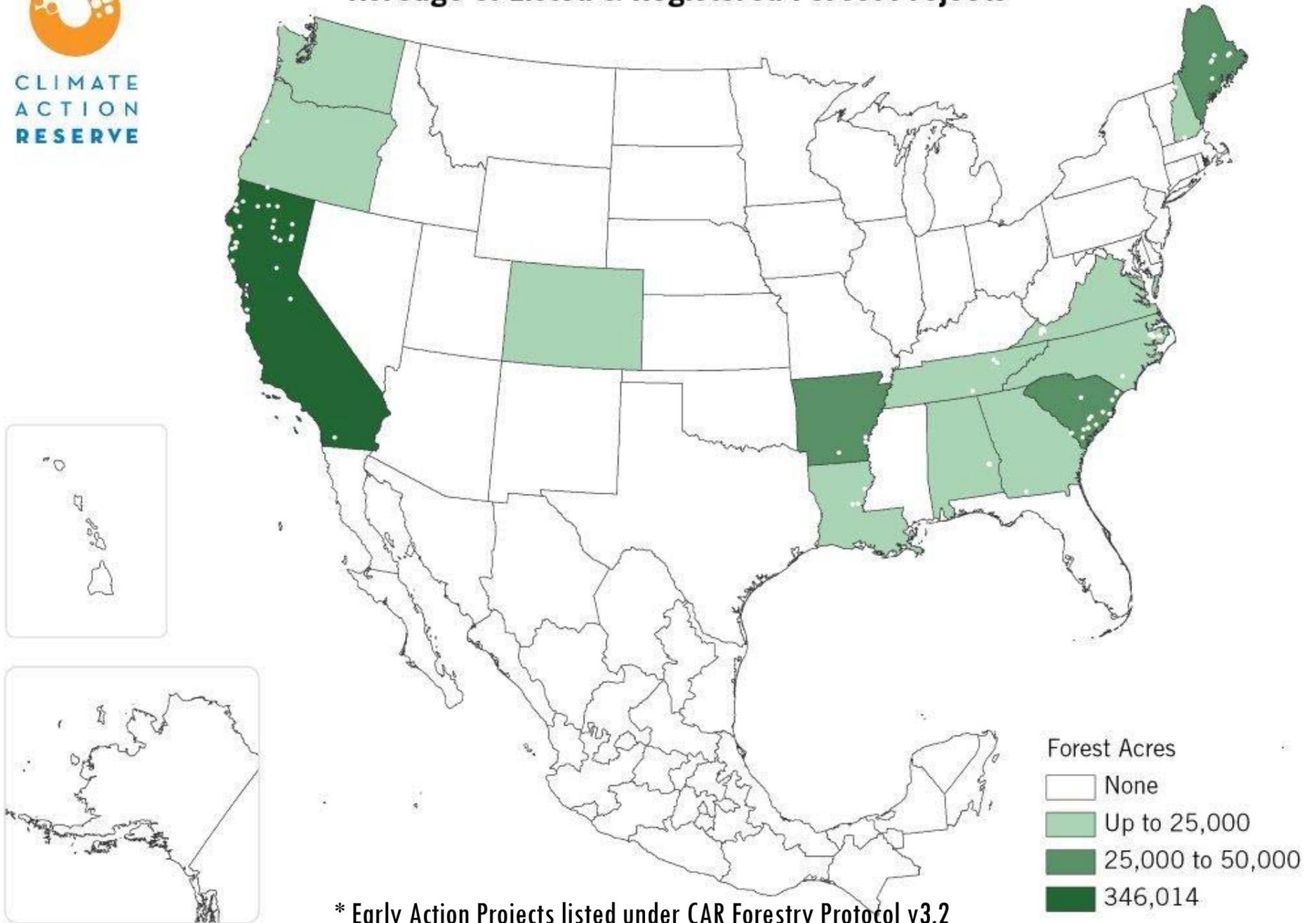
Forest Offset Project Types

- **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**
 - Remove threat of conversion to non-forest use and ensure continued forest cover by conservation easement or dedication to a government agency
- **Improved Forest Management**
 - Activities that increase forest-based sequestration and/or decrease emissions



CLIMATE
ACTION
RESERVE

Acreage of Listed & Registered Forest Projects*



* Early Action Projects listed under CAR Forestry Protocol v3.2



CLIMATE
ACTION
RESERVE

Early Action Forest Project Statistics

Projects submitted: 95

Listed projects: 29

Registered projects: 18

Completed projects: 0

Total CRTs Registered: 5,465,299



CLIMATE
ACTION
RESERVE



COMPLIANCE OFFSET PROJECTS - LIVESTOCK

Project Definition



CLIMATE
ACTION
RESERVE

“installation of a biogas control system that captures and destroys methane gas from anaerobic manure treatment and/or storage facilities on livestock operations. The BCS must destroy methane gas that *would otherwise have been emitted to the atmosphere in the absence of the project from uncontrolled anaerobic treatment and/or storage of manure.*”



Livestock Projects - Emission Reductions Quantification

- Emission reductions are calculated twice: methane emissions are modeled and the amount of metered methane is quantified
- BCS optimizes methane production, so baseline conditions must be modeled to avoid potential over-crediting

Early Action Livestock Projects Statistics



CLIMATE
ACTION
RESERVE

Projects in progress: 108

Listed projects: 41

Registered projects: 35

Completed projects: 2

Total CRTs Registered: 994,459



Compliance Offsets – ODS Projects



CLIMATE
ACTION
RESERVE





CLIMATE
ACTION
RESERVE

ODS Project Definition



“...Any set of activities undertaken by a single Offset Project Developer or Authorized Project Designee resulting in the destruction of eligible ODS at a single qualifying destruction facility over a 12-month period”



CLIMATE
ACTION
RESERVE

ODS Projects – Key Elements

- All ODS must be destroyed at either:
 - A RCRA approved hazardous waste combustor, or
 - A facility that meets the guidelines in the TEAP (2002) Report of the Task Force on Destruction Technologies
- ODS material sourced from and destroyed in the U.S.





CLIMATE
ACTION
RESERVE

Eligible ODS - U.S.

- Refrigerant from industrial, commercial or residential equipment, systems and appliances or stockpiles

Refrigerant

- CFC-11 • CFC-114
- CFC-12 • CFC-113
- CFC-13 • CFC-115



- ODS sourced from federal government installations/stockpiles is not eligible



CLIMATE
ACTION
RESERVE

ROLE OF OFFSET PROJECT REGISTRIES



CLIMATE
ACTION
RESERVE

The Role of the OPR

- Climate Action Reserve is accredited by ARB as an Offset Project Registry (OPR)
- OPRs support ARB in the implementation of the cap and trade program by reviewing projects and issuing Early Action Offset Credits and Registry Offset Credits
- These credits cannot be used for compliance, but they can be converted to ARB Offset Credits, which can be used for compliance
- **Only** ARB has authority to issue ARB offset credits for compliance



Air Resources Board Offsets Credits (ARBOCs)

- ARB Offset Credit (ARBOC): Represents one metric ton of CO₂e emissions reduction or removal
 - Are comparable to what the market currently calls CCOs—California Compliance Offsets
 - ARBOCS are only issued after the issuance and cancellation of a Registry Offset Credit (ROC) or Early Action Offset Credit (EAOC) by an (OPR) Offset Project Registry
 - Can only be held in an account on CITSS, ARB's tracking system
 - Can only be issued by ARB into a CITSS account
 - Do not expire, but are subject to invalidation rules



Early Action Offset Credits (EAOCs)

- CRTs that are issued against approved CAR protocols are EAOCs if they meet all the requirements of the regulation
 - Vintage 2005-2014
 - Listed before January 1, 2014
- Approved CAR protocols for early action:
 - U.S. Livestock versions 1.0 through 3.0;
 - Urban Forest versions 1.0 through 1.1;
 - U.S. Ozone Depleting Substances version 1.0
 - U.S. Forest versions 2.1 and 3.0 through 3.2
- EAOCs can be converted to ARBOCs by applying to ARB



How to convert EAOCs to ARBOCs: Who can do it?

- An EAOC can be converted into an ARBOC by the Offset Project Operator (OPO), Authorized Project Designee (APD) or the EAOC holder.
- OPO: An entity with legal authority to implement the project
- APD: An entity authorized by the OPO to act on its behalf
- If the OPO or APD does not submit an EAOC for conversion, ARB allows a holder to do it, with the exception of forest and urban forest projects, unless they transition to the Compliance Offset Protocol
 - Reserve has released new form to help facilitate this process:
Consent to Release Early Action Offset Credit Holdings



How to convert EAOCs to ARBOCs: Listing the Early Action Project

- Registration with ARB by opening a CITSS account
 - CITSS provides accounts for market participants to hold and retire compliance instruments, such as ARBOCs
- Step 1: Submit project for listing to ARB
 - Complete the *Application for Listing an Early Action Project*
 - ARB will list project on its website:
<http://www.arb.ca.gov/cc/capandtrade/offsets/earlyaction/projects.htm>
 - ARB will notify the Reserve the project has been listed
 - The Reserve will also denote on its registry which projects are designated as early action



How to convert EAOCs to ARBOCs: Conflict of Interest Evaluation

- Step 2: Verification Body must submit a conflict of interest evaluation to ARB
 - **MUST** use ARB-accredited verification body
 - Verification Body must be different from original verification body
 - COI assessed against the OPO, APD and parties that hold greater than 30% of the EAOCs for the reporting period
 - Reserve will work with ARB to disclose information needed to evaluate COI
 - VB must submit request information and sign NDA
 - ARB has a form, *Evaluation of Conflict of Interest for Early Action Project* to assist with evaluation of COI



How to convert EAOCs to ARBOCs: Regulatory Verification

- Step 3: EAOCs under go regulatory verification
 - Regulatory verification for EAOCs is a desk review
 - All previous vintages may be reviewed at once
 - The VB must be able to conclude with reasonable assurance that they agree with the previous verifier's assessment
- As part of the desk review, the verification body (VB) will examine:
 - Review project documentation submitted to the previous verifier
 - Review the data checks conducted by the previous verifier



How to convert EAOCs to ARBOCs: The Desk Review

- To pass the desk review VB must attest with reasonable assurance that positive verification statement should have been issued.
 - ARB has made a form available for this purpose, the *Early Action Desk Review Findings*
 - If the VB, can not reach a reasonable level of assurance, they must prepare a report to ARB with reasons why full re-verification is warranted for ARB consideration
 - ARB will make a determination whether it agrees with the verification body's findings.
 - If ARB agrees with the VB, the OPO can choose to have the project go through full verification services



How to convert EAOCs to ARBOCs: Full Verification

- Full verification includes the following activities:
 - A site visit if the project is still in operation
 - A desk review of original documentation if the project is no longer in operation
 - A data check of all sources
- The VB must submit an offset verification statement and detailed verification report for each vintage verified, only vintages that received a qualified positive or positive offset verification statement can be issued ARB offset credits



How to convert EAOCs to ARBOCs: Issuance

- Step 5: If the project passes the desk review or the full verification results in a positive/qualified verification statement , ARB will issue ARBOCs 1:1 for EAOCs (forest projects exception).
 - ARB will first assess whether the EAOC meet the requirements of the Regulation before issuing credits
 - Within 10 days of making a determination, ARB will notify the EAOP to cancel the EAOCs
 - The OPO, APD or holder must provide information to ARB for ARB offset credit issuance. ARB has provided a form for this purpose:
 - *Request for Issuance of ARB Offset Credits for an Early Action Project*



Who receives the ARBOCs?

- If the OPO or APD registered the project, ARB will issue all credits into the holding account of the OPO or APD, holders of credits will need to work with the APD to receive their credits
 - This is irrespective of whether the credits have already been sold on to a third party.
- If a credit holder registered the project, ARB will issue credits into the holding account of the holder
 - Holder can only get issuance of credits for which he can prove ownership.



Canceling Credits from the Reserve

- What does the Reserve require?
 - To cancel credits the holder of the CRTs must initiate the transfer in the registry
 - No credits will be canceled until ARB notifies us to cancel the credits
 - Cancellation of the credits will occur immediately after notification is received from ARB
 - A confirmation of the cancellation will be provided to the holder



Performing the Cancellation in the Registry

Transfer CRTs	
Origination Program:	Climate Action Reserve
Offset Credit Serial Numbers:	CAR-1-US-784-25-570-TN-2011-388-501 to 1000
Quantity:	500
Project Name:	Briar Forest
Vintage:	2011
Transfer <input type="text" value="500"/> CRTs to:	
<input type="radio"/> Another Account Holder	Select an Account Holder <input type="text"/>
<input type="radio"/> Active Account	Select an Active Account <input type="text"/>
<input type="radio"/> Back to Primary Account	
<input type="radio"/> Retirement Account	Select a Retirement Account <input type="text"/>
Retirement Reason:	Select a reason <input type="text"/>
Retirement Reason Details:	<input type="text"/>
Email Notification (list address, separate with ",")	<input type="text"/>
<input checked="" type="radio"/> Export Account	Select a Registry <input type="text"/>
Account ID:	Select a Registry ARB
Account Name:	APX VCS Registry
<input type="radio"/> Buffer Pool	
Referenced Project:	Select a Project <input type="text"/>

Credits Canceled



CLIMATE
ACTION
RESERVE

Project Offset Credits Issued													
Date Issued	Project ID	Project Name	Project Developer	Project Type	Protocol Version	ARB Eligible	Vintage	Total Offset Credits Issued	Offset Credits Converted to VCUs	Canceled for ARB Compliance	Canceled	Project Site Location	Project State
05/09/2011	CAR784	Briar Forest	Kristen Garcia PD	Improved Forest Management	Version 3.1	Yes	2011	1000		500		Nashville	TENNESSE

1 - 1 of 1

< first | prev | goto | next | last >

Public Reports: Project Offset Credits Issued



CLIMATE
ACTION
RESERVE

Transitioning your Early Action Project

- All projects must transition from using the early action protocols to the ARB compliance protocols no later than February 28, 2015.
 - Forestry projects must subtract out the optional pools
- Must submit a new project with the Reserve
- The good news: The crediting period for the project starts over from the point it begins using the new protocol.



CLIMATE
ACTION
RESERVE

Registry Offset Credits (ROCs)

- ROCs are issued by an OPR and can only be held in an account at the OPR
- An account at the Climate Action Reserve can hold both ROCs and CRTs
 - ROCs will have a unique serial number
- CAR projects listed and verified according to existing protocols will continue to generate CRTs. Those listed and verified according to ARB compliance protocols will generate ROCs
 - There is no conversion between ROCs and CRTs
- ROCs are tradable between accounts



Steps for Issuance of ROCs: Step One—Listing with an OPR

- As with registration of projects on the Reserve today, the first step is getting your project listed with an OPR.
- Steps for listing (to be done only by OPO or APD):
 - Register with ARB
 - Submit required information and attestations to the OPR
 - ARB has provided forms for this purpose, which are available here: <http://www.climateactionreserve.org/how/california-compliance-projects/arb-forms/>
- Once all documents are submitted, the OPR must respond within 30 calendar days
 - The Reserve generally responds within 10 business days.



Steps for Issuance of ROCs: Step Two – Reporting

- The Compliance Offset Protocols list the information that is required to be submitted in the Offset Project Data Report
- The Offset Project Data Report must be submitted to the OPR within 24 months of listing a project for the initial crediting period
 - The initial reporting period can be 6-24 months in length
 - Subsequent reporting periods must be 12 months in length
- Offset Project Data Reports must be submitted to the OPR within 4 months after the conclusion of the reporting period
 - Projects that do not meet this deadline are not eligible to receive credits



CLIMATE
ACTION
RESERVE

Steps for Issuance of ROCs: Step Three - Verification

- Project should undergo verification by a ARB-accredited verification body and receive a positive or qualified positive verification statement.
 - Verifier does a conflict-of-interest review
 - Offset Verification Statement and Verification Report is submitted to OPR



Steps for Issuance of ROCs: Step Four - Issuance

- Within 45 days of receipt, OPR should approve or deny issuance of ROCs or request additional information.
 - Reserve generally does this within 10 business days.
- Once the Reserve approves the project ROCs will be issued to the project and serialized immediately
- The OPO/APD has the option to transfer their ROCs to other account holders in the registry



How to convert ROCs to ARBOCs:

- Once ROCs have been issued, OPO should provide the following information to ARB:
 - Attestations
 - Listing information from OPR
 - Offset Project Data Reports
 - Offset Project Verification Statements
- ARB will notify OPO and OPR of determination within 60 days.
 - Can approve, deny or request more information
 - If denied, OPO has 10 days to petition for review
 - Final determination within 30 days



CLIMATE
ACTION
RESERVE

Issuance of ARBOCs

- Once notified of determination by ARB, OPR will cancel ROCs within 10 days and notify ARB
- ARBOCs will be issued within 15 days after notice of ROC cancelation



Who can receive ARBOCs?

- ARBOCs will generally be issued into the account of the OPO who registered the project with ARB, unless otherwise specified by the OPO
- OPO may pre-assign ownership rights to any third party with a CITSS account.
 - In such case, a specified number of ARBOCs will be issued directly to that account



CLIMATE
ACTION
RESERVE

Resources

- Overview of Early Action and Compliance Processes available on our website:
<http://www.climateactionreserve.org/how/california-compliance-projects/>
- Project Specific Tools
 - Livestock Project Calc Tool
 - Livestock Project Design Document / Index
 - Forest Monitoring Calculation Worksheet
 - Harvested Wood Products Calculation Worksheet



Buyer Liability & Invalidation Risk

- CARB may find that an offset is invalid if
 - Amount of credits is overstated by more than 5%
 - Project is not in accordance with all local, state, and national environmental, health and safety regulations during reporting period
 - Credits have been issued by another program for the same period
- If found invalid, CARB will remove the offsets from the account where they are currently located, whether retired or active
 - Except forest projects, for which forest owner is required to replace any retired credits



CLIMATE
ACTION
RESERVE

Buyer Liability - Time Frame

CARB can find credits invalid within eight years, except for the following:

- For Livestock, Forest and Urban Forest, liability is only for three years if the project is verified by a different verifier within three years.
- For ODS*, liability is only three years if it is re-verified by a second verifier within that time.

**ODS projects have only a one-year crediting period*



CLIMATE
ACTION
RESERVE

THE CLIMATE ACTION RESERVE APPROACH: WHAT SETS US APART?



CLIMATE
ACTION
RESERVE

Does it matter where your offset credits come from?

- YES! In a system with buyer liability, compliance buyers need to understand what they are buying.
 - Buyers need to conduct due diligence on the verifier and the offset project registry.
- The Reserve is your advocate. The careful work of our staff in scrutinizing projects helps to protect buyers from invalidation risk later on



CLIMATE
ACTION
RESERVE

Benefits of the Climate Action Reserve:

1. Meticulous oversight of projects

- The Climate Action Reserve is known for its careful scrutiny of every project in our system.
 - The care we take with every project reduces the oversight burden on buyers and the risk of invalidation.



CLIMATE
ACTION
RESERVE

Benefits of the Climate Action Reserve

2. Experience

- The Climate Action Reserve has been working on carbon accounting in California for over ten years.
 - We were created for this role by a state law in 2001.
 - Carbon accounting is all that we do.
 - We have reviewed 245 projects and issued more than 33million CRTs overall.
 - We have a team of 28 staff dedicated to this program.
 - We are insured against mis-issuance by our staff.
 - We have a well-established process for project review that minimizes delays.



CLIMATE
ACTION
RESERVE

Benefits of the Climate Action Reserve

3. Responsiveness

- We place a high priority on customer service
- Help desk for all questions available everyday 9-5pm
 - Response to all calls within one business day.
- Ten business day response time on all document submissions.
- Your project will be reviewed promptly, but carefully



4. We know the protocols and have the credits

- We wrote the documents that were the basis for all four of the CARB protocols.
- We have years of experience using them with real projects
 - We have reviewed 245 projects with these protocols
- We have issued more than 12 million compliance - eligible CRTs
 - ALL early action-eligible credits to date have been issued through the Reserve



CLIMATE
ACTION
RESERVE

Why buy Reserve offsets?

5. Our goal is 100%

- We are striving for:
 - 100% of CRTs submitted to CARB are successfully converted to ARBOCs.
 - 100% of ROCs issued by the Reserve are successfully converted to ARBOCs
 - 0% of ARBOCs from our projects are invalidated.
- That is what we are focused on!



CLIMATE
ACTION
RESERVE

QUESTIONS?



CLIMATE
ACTION
RESERVE

Future Workshops & Webinars

- **Webinars:**

- *Guide to “Golden” Offsets* – May 2013
- *Quebec Linkage* – June 2013
- *Preparing for Your Desk Review: Forest Projects* – June 2013

- **Workshops**

- California Compliance Offset Workshops:
 - April 16th, 9:00 A.M. to 11:30 A.M. San Francisco, CA
- Forest Offsets Workshop
 - April 16th, 1:00 P.M. to 3:00 P.M. San Francisco, CA

Register at: www.events.climateactionreserve.org



Navigating
the American
Carbon World

APRIL 16-18, 2013
SAN FRANCISCO, CALIFORNIA



REGISTER NOW FOR NORTH AMERICA'S LARGEST CARBON EVENT





CLIMATE
ACTION
RESERVE

CONTACT:

JOEL LEVIN

JOEL@CLIMATEACTIONRESERVE.ORG

213-891-6927

SCOTT HERNANDEZ

SHERNANDEZ@CLIMATEACTIONRESERVE.ORG

213-542-0295

WWW.CLIMATEACTIONRESERVE.ORG

213-891-1444