

Overview of the California Cap-and-Trade Program, Registry Process, and California Carbon Market

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CA Forests and GHG Reduction Webinar Series



California Emissions Reduction Trajectory

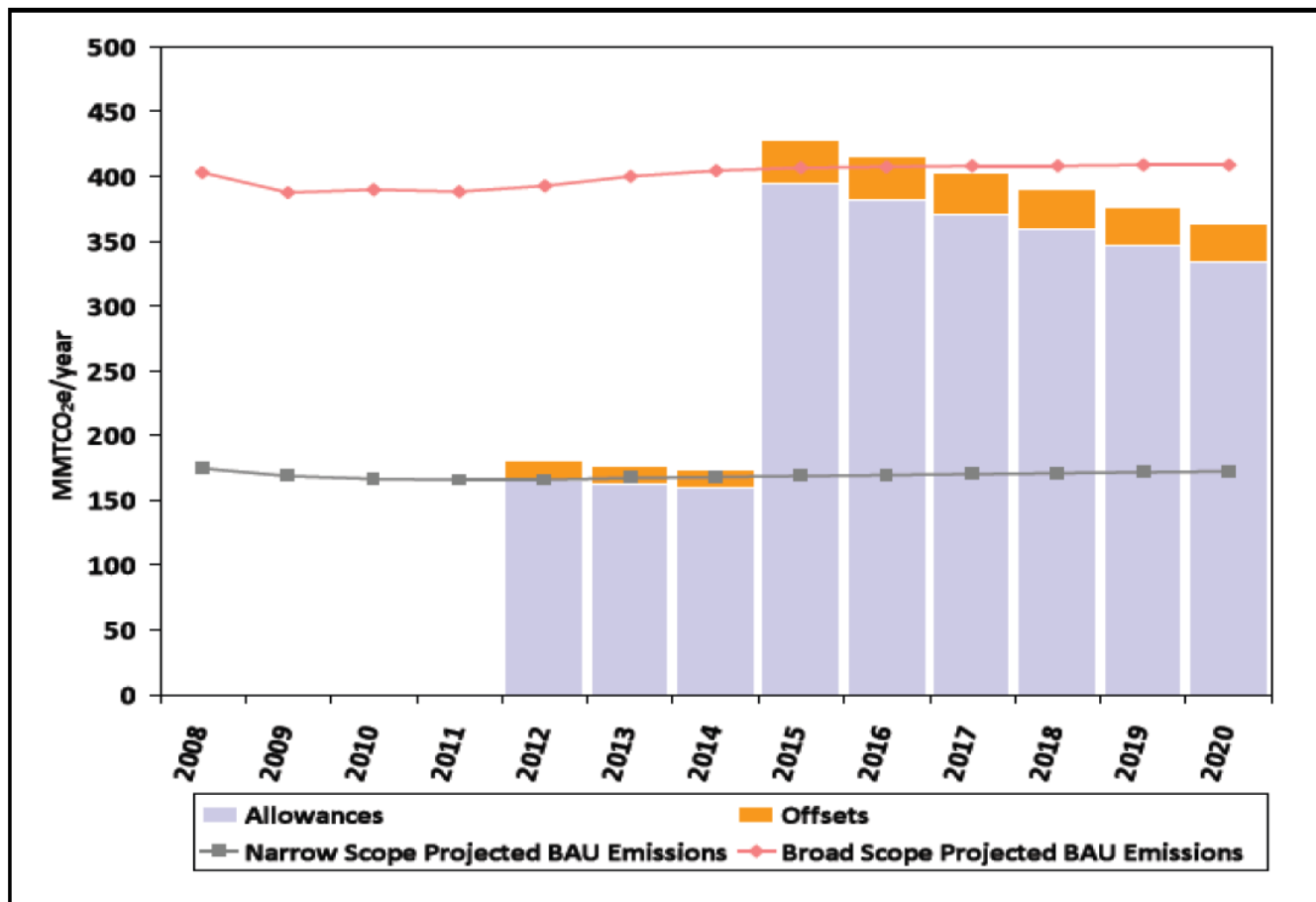
- By 2020, reduce greenhouse gas (GHG) emissions to 1990 levels
- By 2030, reduce GHG emissions 40% below 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels



California's Cap-and-Trade Program

- Covered sectors
 - Sources emitting 85% of California GHG emissions
 - From 2013, electricity generators and large industrial facilities emitting $\geq 25,000$ metric tons CO₂e
 - From 2015, distributors of transportations fuels, natural gas, other fuels
- Emissions Cap
 - 162.8 MMT in 2013 (electricity and industry)
 - 394.5 MMT in 2015 (includes all covered sectors)
 - 334.2 MMT in 2020

GHG Cap versus Business-as-Usual Emissions



Source: CARB, California Cap-and-Trade Regulation Initial Statement of Reasons, Appendix E: Setting the Program Emissions Cap, <http://www.arb.ca.gov/regact/2010/capandtrade10/capv3appe.pdf>

What are carbon credits?

- Allowances
 - “Permits” to emit GHGs given or sold by ARB
 - # of allowances = “cap”
 - Cap shrinks each year (# of allowances decreases)
- Offsets
 - Credits created by reducing emissions from uncapped sources
 - ARB allows compliance entities to submit offsets for up to 8% of credits submitted
- Compliance entities (and others) can buy and sell credits (the “trade”)
- Each compliance entity must submit allowances and, optionally, offsets equal to actual emissions

Current ARB Compliance Offset Protocols :

- U.S. Forests
- U.S. Livestock
- U.S. Destruction of Ozone Depleting Substances (ODS)
- U.S. Urban Forests
- U.S. Mine Methane Capture

Future Protocols:

- U.S. Rice Management
- International Sectoral Crediting (REDD?),





American Carbon Registry

- Founded in 1996 as the first private voluntary GHG registry & joined Winrock in 2007
 - Expertise in forest carbon / REDD+, agriculture production, biofuels, livestock & renewable energy
- Registry roles:
 - Develop and approve carbon offset accounting standards & methodologies / protocols
 - Oversee independent verification by accredited entities
 - Review and register GHG emissions reduction projects, including issuance of serialized offsets
- Approved in December 2012 as California Offset Project Registry & Early Action Offset Program
 - Supports ARB's implementation of the Cap-and-Trade Offset Program

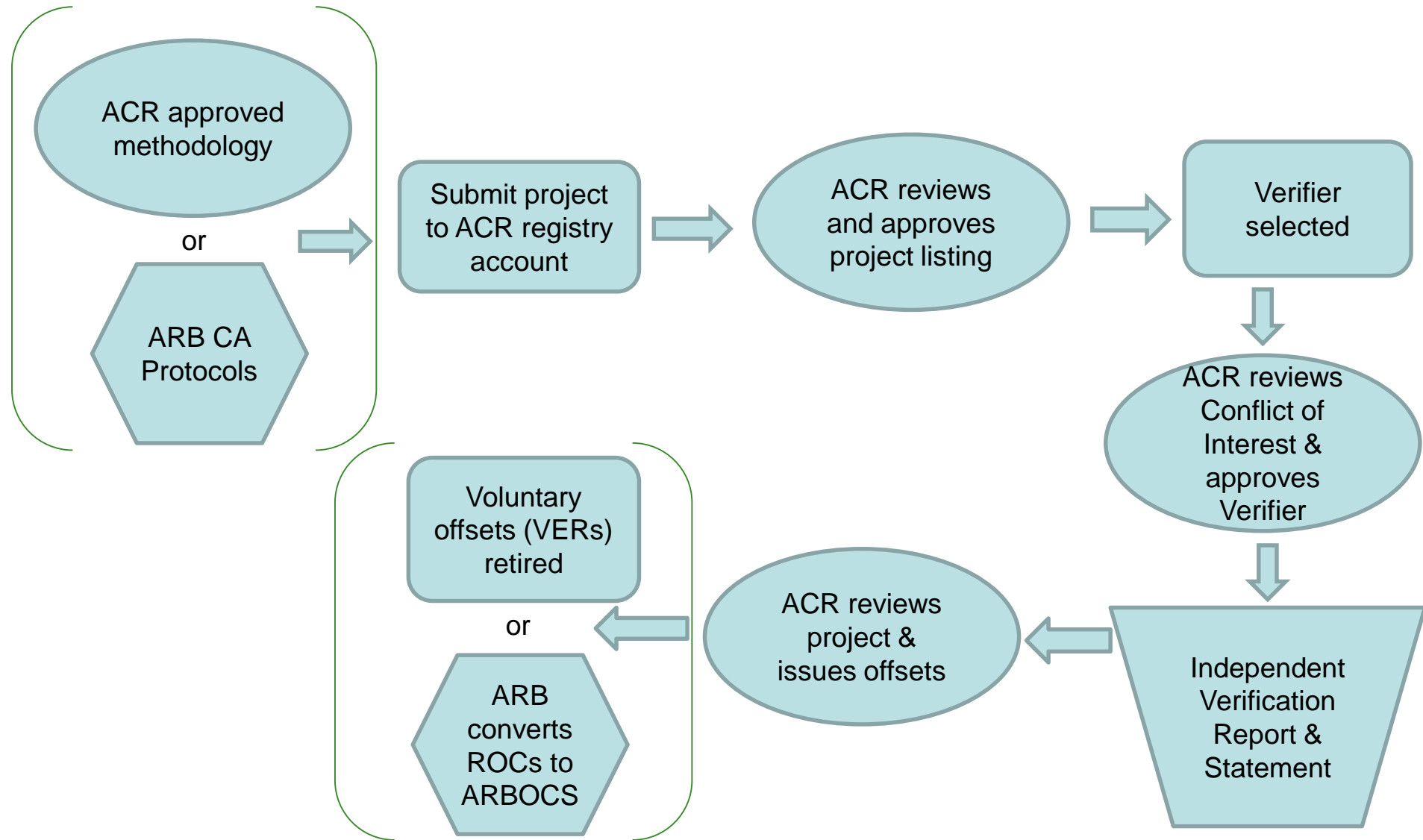


Registry Roles

- Develop and approve environmentally rigorous carbon offset accounting standards & methodologies
- **Oversee independent verification by accredited entities**
- **Review and register GHG emissions reduction projects, including issuance of serialized offsets**



Carbon Offset Development Cycle



ACR oversees the project verification process

- *Approves verification bodies
- *ACR audits nearly 50% of all project verifications
 - Including site visits and desk reviews
- *Provides technical assistance to verification bodies
- *Conducts technical review of project documentation and supporting materials
- *Reviews of Verification Report/Statement for compliance with Regulation
- *Issues Verified Emissions Reduction Tons





GHG Offset Project Review, Listing, and Offsets Issuance

ACR remains involved in projects from inception, listing, credit issuance, and beyond...

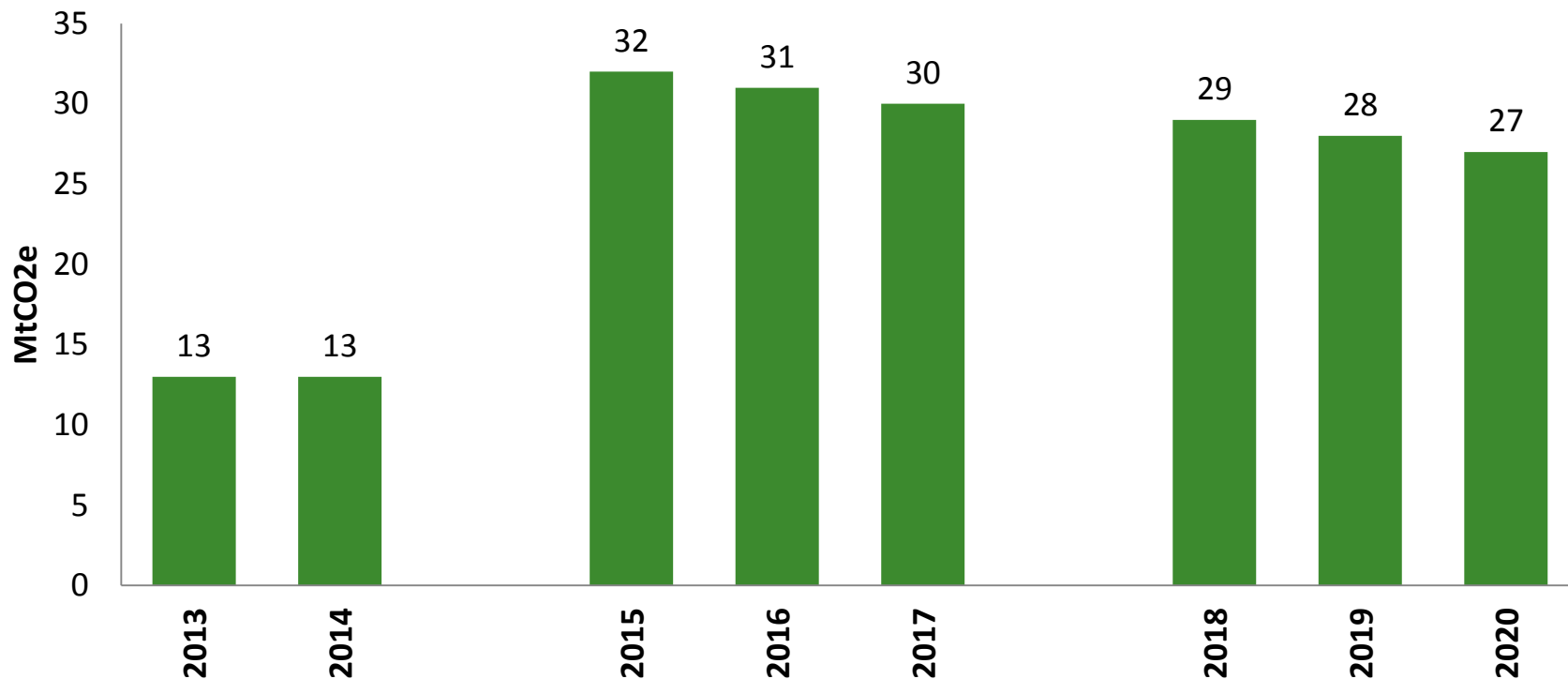
- *Methodology development
- *Project listing review and approval
- *Conflict of Interest evaluation
- *Verification body oversight



*Technical assistance to project developers before, during and after projects are issued credits.

*ACR collaborates with ARB often on specific Regulation and protocol issues as they arise and for updates and reviews.

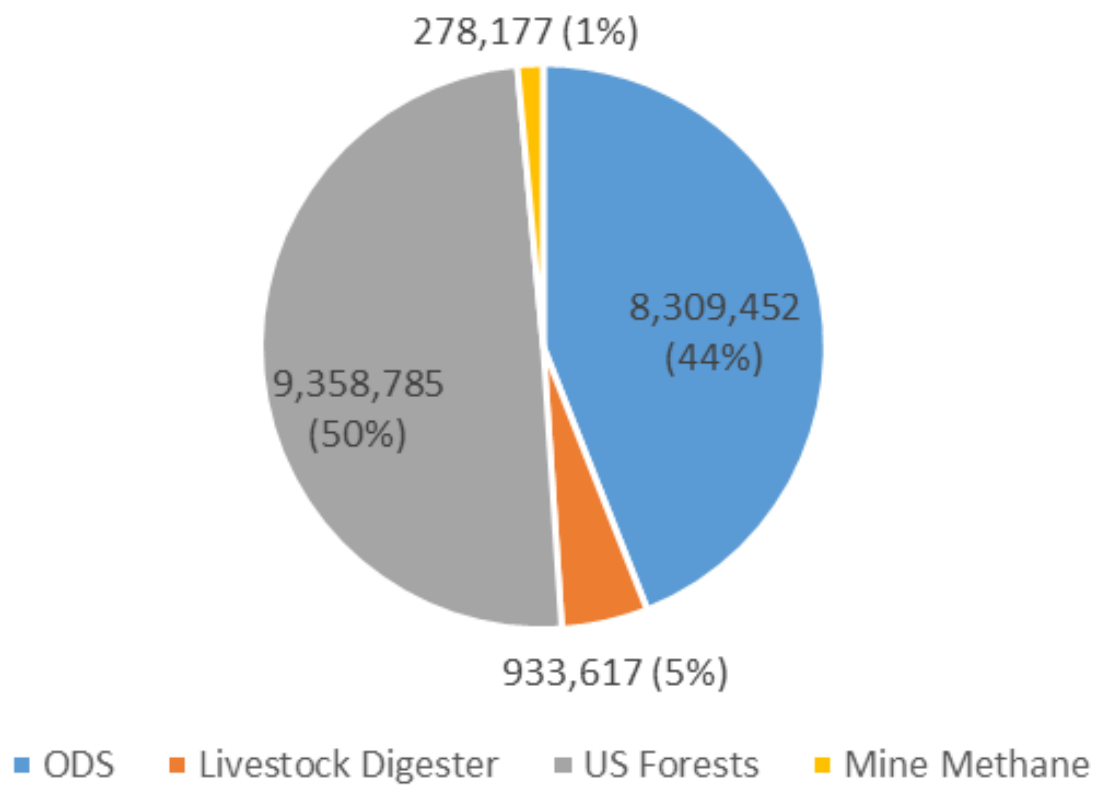
CA Carbon Offsets Maximum Demand



Offsets can be used for up to 8% of compliance obligation =
over 200 million tons through 2020

Tradable ARBOCs Issued

Total Offsets (Compliance and Early Action)



As of April 8, 2015

Carbon Market Prices

- Allowance auction floor price = \$12.10
- Clearing price of 2015 allowances at February 2015 auction = \$12.21
- Spot price, current vintage ~ \$12.55
- California Carbon Offsets (CCOs) with three-year invalidation period ~ \$10.00
- CCOs with seller guarantee against invalidation ~ \$11.00



Thank You!

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