

Special Topics Series:
**A Path Forward for Dairy
Digesters in CA**



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Today's Webinar



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1. Welcome	Max DuBuisson Climate Action Reserve
2. Air emissions permitting	Ramon Norman San Joaquin Valley Air Pollution Control District
3. Water emissions permitting	Steve Klein Regional Water Quality Control Board
4. Case Study: Fiscalini Farms	Nettie Drake AgPower Development
5. Case Study: Stockdale Dairy	Jackson Lehr California Bioenergy
6. Offset Markets Under AB32	Max DuBuisson
7. Q&A	



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AB32 creates new revenue opportunities digester projects

OFFSET MARKETS UNDER AB32



Cap-and-Trade in California

- Assembly Bill 32 passed in 2006, cap-and-trade regulation adopted in Dec 2010
- Program begins Jan 1, 2012 and runs through 2020
 - Divided into three compliance periods of 3 years each
 - Narrow scope for 1st period, broad scope beginning Jan 1, 2015
- Must have compliance instruments equal to your emissions for each year
 - Allowances: most allocated at the beginning, but auctioned in future years
 - Offsets: can be used for up to 8% of your compliance obligation



Offsets for Compliance

- ARB will assess and approve third-party protocols and accredit third-party registries to issue offsets
 - Four Climate Action Reserve protocols have been adopted (**including U.S. livestock**), more will be considered in March
 - **Offsets may be generated by projects outside of CA**
 - The process is not yet determined for becoming an accredited registry, but the Reserve will apply as soon as is possible
- The Reserve program will be coordinated with the ARB program to ensure a steady supply of offsets for the CA market
- ARB will have its own guidelines for verification, and will accredit independent verification bodies



Regulatory Next Steps

- There are still many unknowns that are being finalized
 - What is the process for project developers?
 - What is the process for covered entities?
 - Allowance allocation details
- ARB staff are continuing to update the regulation this year, final changes to be adopted October 2011
- Public meeting to talk about additional offset protocols will be in early March
- 15-day public notices, as well as other public workshops, expected through the Spring and Summer



Market Shifts

- Prices for project types that have been adopted (including livestock) have seen a dramatic increase
- Compliance-ready CRTs are trading for **\$8-10** each
- The allowances have a price floor of \$10, and the price is expected to continue to rise over time as the cap is lowered
 - Offset demand will increase as allowance supply is constrained
- 61 livestock digester projects have already been submitted to the Reserve
 - 15 have completed verification, earning 247,363 CRTs total

CA Carbon Market

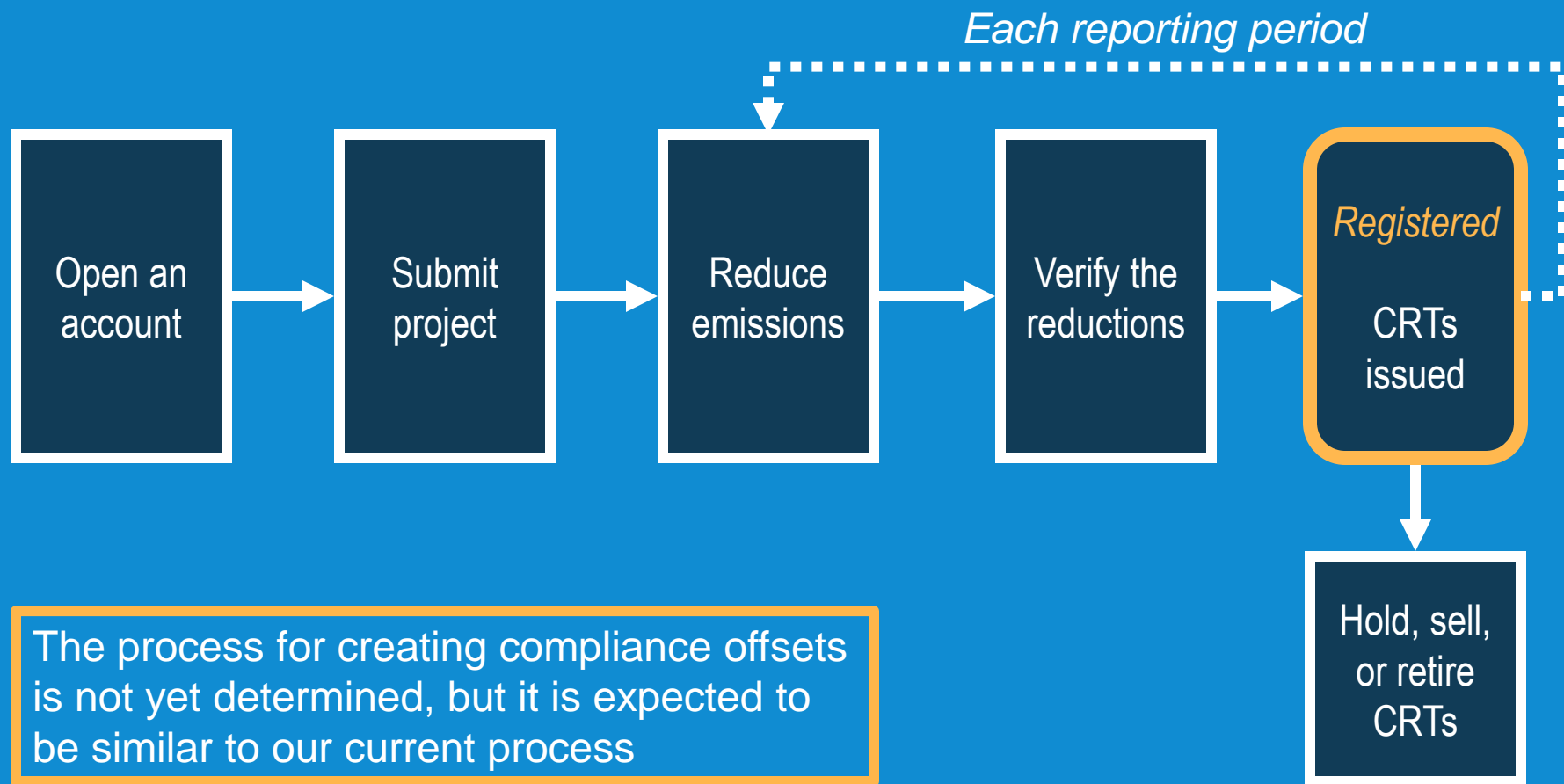


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Compliance Period	Year	Allowance Budget (mt CO ₂ e)	Total Offset Demand
First (narrow scope)	2012	165,800,000	39,064,000
	2013	162,800,000	
	2014	159,700,000	
Second (broad scope)	2015	394,500,000	91,784,000
	2016	382,400,000	
	2017	370,400,000	
Third	2018	358,300,000	83,104,000
	2019	346,300,000	
	2020	334,200,000	



The Reserve process





Livestock Project Protocol v3.0

- Capture and destruction of CH₄ from a biogas control system that digests cow or pig manure that was previously handled in an uncontrolled anaerobic lagoon
- Gas may be destroyed onsite (flare, generator, boiler) or offsite (pipeline, CNG vehicles)
- Only new projects are eligible (submit paperwork within 6 months of startup)
- Credits are issued for CH₄ that *would have been* emitted from the lagoon, minus the emissions from the project itself
- Third-party verification must be conducted at least every 2 years (CRTs only issued following successful verification)
- Projects that co-digest with other wastes may be eligible as an Organic Waste Digestion project, but this protocol is not yet adopted for compliance



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More Information

- www.climateactionreserve.org
- (213) 891-1444
- <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>