




California Carbon Markets:
An overview of the trading activity in California's cap and trade market

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Agenda

- i. Evolution Markets – the Basics of Who We Are, What We Do**
- ii. Market Overview**
 - a. California Carbon Product Overview
 - Instruments
 - Contracts /Exchanges
 - Settlements
 - b. Market Pricing, Liquidity and Volumes
 - c. Price Drivers

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Our Service Offerings



Intermediation

- Professional OTC brokerage services for energy and environmental markets (intermediaries and regulated entities)
- Serving both exchange-cleared and bilateral marketplaces
- EvoScreen™ electronic transaction platform
- EvoAuction™ online auction platform

Advisory


- Transaction and compliance strategy support
- Investment due diligence
- Business opportunity assessment
- Market entry support
- Renewable energy project development advisory
- Monetization of environmental commodities

Structured Transactions

- Environmental asset origination and sales
- Energy supply sourcing and off-take agreement structuring and sales
- Power Purchase Agreement (PPA) negotiation
- Carbon credit project origination
- Carbon finance investments
- Logistics and physical delivery transactions

Market Data/Analytics

- evo.ID** online market data and risk management resources
- evo.DB** energy and environmental markets price database
- Energy and environmental market analysis
- Customized assessments and transaction support



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Our Markets



Energy

- Financial and physical coal
- Renewable energy, including US REC markets and renewable PPA structuring/negotiation
- Federal and state energy efficiency credit markets

Emissions

- Global carbon compliance markets, including carbon offset project origination
- US federal and state NOx and SOx allowance markets, including ERCs and RECLAIM

Clean Fuels

- Global biomass and biofuel markets
- Nuclear fuel supply, risk management and hedging
- Physical natural gas

Water

- US water rights and wetlands banking markets; Ecosystem services

Weather

- Weather derivatives, risk management and hedging products
- Natural catastrophe securities



ENVIRONMENT

EMISSIONS
CARBON
RENEWABLE ENERGY

WEATHER
ENERGY EFFICIENCY
WATER



ENERGY

COAL
NATURAL GAS
BIOMASS

NUCLEAR FUELS
BIOFUELS



FINANCE

STRUCTURED PRODUCTS
CARBON FINANCE



Evolution Markets – Leadership



Since Evolution Markets was founded in 2000, we have received more than 125 awards for excellence in brokerage. Below you will find a sample of our most recent awards from 2011. For the full list our awards, please visit www.evomarkets.com



Annual Customer Survey 2011

- Best Broker, Options (EUAs, CERs)
- Best Broker, Spot & Futures (EUAs, CERs)
- Best Primary Originator Kyoto Project Credits
- Best Broker, Secondary Market Kyoto Project Credits
- Best Broker, North American Markets (California)
- Best Broker, North American Markets (RGGI)
- Best Broker, Renewable Energy Certificates, North America
- Best Broker, SO₂
- Best Broker, NOx (Reclaim)
- Best Broker, NOx
- Best Broker, NOx (Houston/Galveston)
- Best Broker ERCs
- Best Broker, Weather Risk Management, North America
- Best Broker, Weather Risk Management, Europe
- Best Broker, Weather Risk Management, Asia

*category runner-up



Annual Commodity Rankings 2011

- Best Broker, U.S. Coal
- Best Broker, European Biofuels
- Best Broker, US Biofuels
- Best Broker, International Biomass
- Best Broker, US Renewable Energy Certificates
- Best Broker, US Weather Derivatives
- Best Broker, European Weather Derivatives
- Best Broker, European Union ETS Allowances (EUAs)
- Best Broker EUA Options
- Best Broker, CERs – Secondary (CDM)
- Best Broker, Voluntary Carbon Emissions Reductions (US)
- Best Broker, US SO₂ & NOx


energy risk Annual Awards

- House of the Year: U.S. Coal (2010)
- Specialist Broker of the Year (2008)
- House of the Year: European Emissions (2007)
- House of the Year: Weather / Emissions (2004)

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The “Four Buckets” of CA Carbon Products



Active Participants

- Commodity Traders
- Hedge funds
- Banks
- Power generators
- Industrials
- Offset Project Developers

California Carbon Allowances (CCAs)

Exchange-cleared & OTC bilateral forward/futures/option contracts

California Carbon Offsets (CCOs)

Physical delivery of CARB-issued offsets meeting AB 32 compliance requirements. Can be program contingent

Early Action Credits

AB 32-eligible CRTs convertible into compliance offsets (CCOs) subject to a desk review by a CARB-accredited verifier

Potential Early Action Credits

ARB is expected to approve additional protocols from Offset Standard Bodies such as the Climate Action Reserve, American Carbon Registry and potentially others

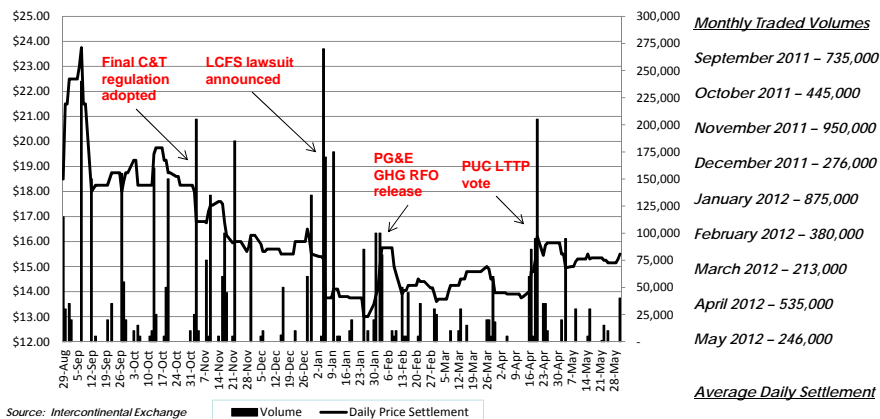
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Benchmark California Carbon Allowance (CCA)



December 2013 V13 ICE-cleared CCA



High: \$24.25 on 9/7/2011

Low: \$13.00 on 1/25/2011

Total Volume Traded as of May 31st: 4,845 contracts (represents 4,845,000 tco2e)

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Offset Market Context



Perspective

The California offset compliance market is still emerging. All offsets are traded over-the-counter (OTC) and under bilateral contracts with customized terms. Because the market infrastructure, i.e. registries, verifiers, aren't yet available, buyers/sellers are agreeing to perform based on expected infrastructure. Evolution offers services structuring "early" compliance offset deals based on the regulations (and anticipated market infrastructure and risks). We help assess the risks/rewards of these various opportunities.

Invalidation Risk* Defined

When a regulated entity in California's cap and trade program surrenders a compliance offset that is later invalidated by the regulator due to fraud or malfeasance during the creation of the credit. In this case, the entity is re-introduced a compliance obligation by the regulator for the invalidated offsets.

The seller or the buyer must represent and warrant in the bilateral contract who is responsible for replacing invalidated offsets.

* *significant reason why offsets are discounted to allowances today (and likely into the future)*

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Early Action Credits



All approved CRTs (US ODS, Livestock Methane, Forestry, **Urban Forestry**) are called Early Action Credits and must be converted into compliance-grade offsets called California Carbon Offsets (CCOs). *Conversion Risk: risk CRTs are rejected at conversion.* The process includes the following:

1. Desk review by an ARB-accredited verification body
2. If positive review, CRTs are retired and an equal amount of compliance offsets issued into the compliance registry
3. If negative review, full verification is required which could yield a different volume

Estimated Add-On Costs: desk review: \$2,500-\$5,000?; regulatory verification: \$10,000-\$15,000 per verification?

Conversion Mechanics

- Still unclear whether CRT Holders (the Buyer) can convert without the assistance of the developer
- ARB-accredited verifiers available: June-July 2012
- Registries accredited and approved: July-August 2012
- Market tracking system available: September 2012

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California Carbon Offset (CCO)



Product: Guaranteed ARB-issued Compliance Offset. Traded under ISDA or standard PSA.

Settlement: Forward contract resulting in physical delivery of instruments.

Delivery: Guaranteed (or Unit Contingent), from Seller's to Buyer's Holding Account on the ARB registry.

Pricing: Fixed (or Floating against an Index).

Payment: Due upon delivery.

Invalidation: Seller/Buyer wear invalidation risk. If Seller ("Golden" CCO), they must replace any invalidated compliance offsets.

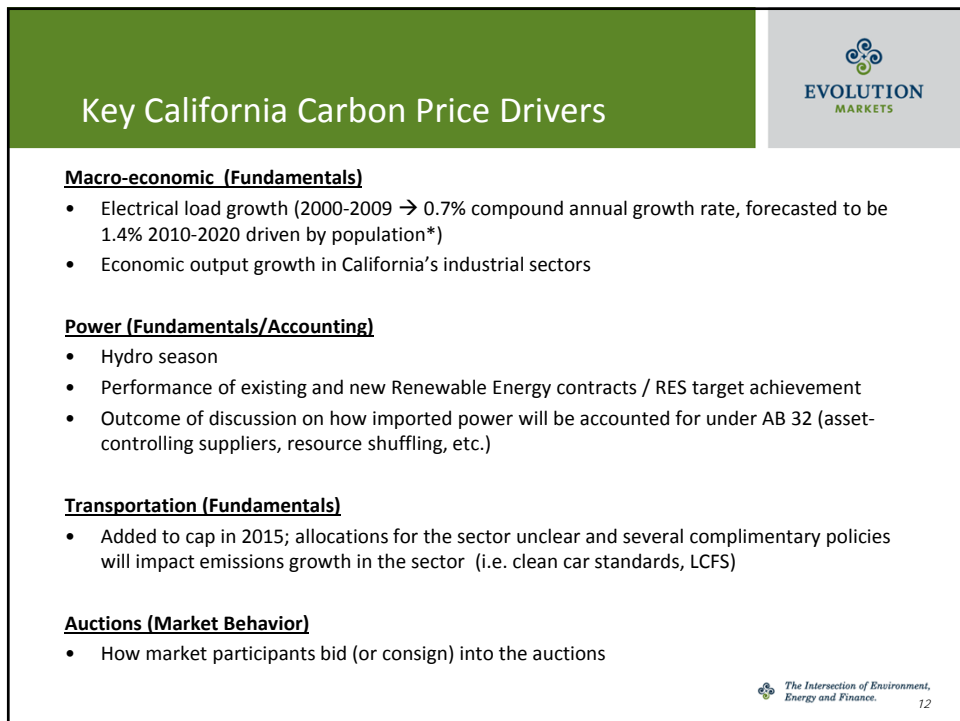
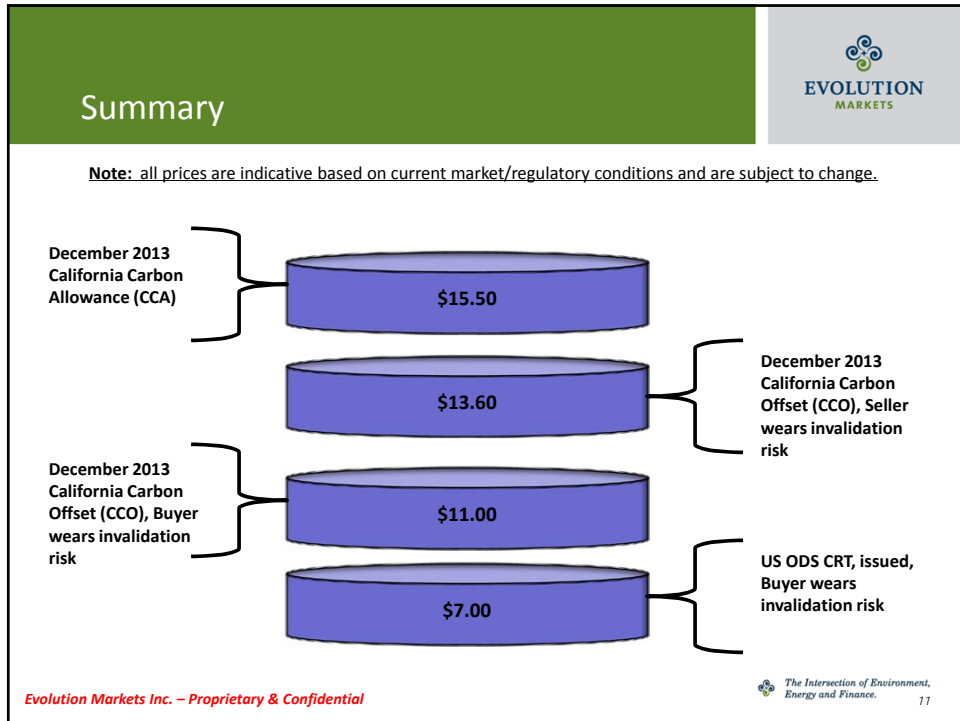
"Program Contingent"*: Seller sells and Buyer buys only if specific program "In-Force" language is met at the time of delivery. This could be negotiated to be "the California Market Tracking System (MTS) must be up and running at the time of delivery." If the "In-Force" Conditions Precedent are not met, the parties agree to void, or "tear-up," the trade.

* Negotiable

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Key California Carbon Price Drivers (Cont'd)



Short Offset Supply (Fundamentals)

- Only 4 project types approved by CARB to date (ODS, Livestock, Urban Forestry, Forestry)
- Estimated 6M tons available to date, anticipated average annual requirement will be 24M
- Adequate offset credit will help contain costs significantly in CPII and III when the system is expected to be short

Linkage with other Programs (Regulatory)

- If California links with other WCI members, i.e. Quebec

California-specific Elements (Fundamentals)

- Already high energy efficiency standards
- Limited fuel switching
- High reserve price on allowances (\$10/tonne to start, rising 5% per annum)

Primary near term Drivers (Regulatory/Legal)

- Legal challenges (interstate commerce, auction revenue, offsets)
- Confidence in the first auction taking place in November

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