



Update on California's Carbon Market:

A discussion of risks, products and an overview of trading activity

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Part II.

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Introduction

Overview of Evolution Markets, Inc.

Our Service Offerings



Intermediation

- Professional OTC brokerage for energy and environmental commodity markets
- Voice-brokerage/market execution for exchange-cleared markets
- Structured OTC bilateral transactions
- 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

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 | WEATHER |
| CARBON | ENERGY EFFICIENCY |
| RENEWABLE ENERGY | WATER |



ENERGY

- | | |
|-------------|---------------|
| COAL | NUCLEAR FUELS |
| NATURAL GAS | BIOFUELS |
| BIOMASS | |



FINANCE

- | |
|---------------------|
| STRUCTURED PRODUCTS |
| CARBON FINANCE |

Market Overview

Market design, summary of market conditions and carbon products

Cap and Trade Overview



Capped Sectors:

- Starting 2013 (Narrow Scope):
 - Large industrial facilities emitting 25,000+ mtco_{2e} per annum
 - Cement, manufacturing, refining, mining/minerals
 - In-state and out-of-state electricity generation
 - Power generators, utilities
 - Electricity imports: first jurisdictional deliverer of power onto the California grid is covered
- Starting in 2015 (Broad Scope):
 - Transportation fuel
 - Upstream industrial fuel below 25,000 mtco_{2e} per annum, and residential and commercial fuel combustion

Facility Compliance Options:

1. Internal abatement, i.e. technology upgrade/retrofit, energy efficiency, fuel switching, etc.
2. California Carbon Allowances (CCAs)
3. California Carbon Offsets (CCOs)
4. Early Action Credits – four ARB-approved CRT types – **US ODS, Forestry, Livestock, Urban Forestry**
5. Compliance instruments from other programs that link with CA – Quebec, other WCI Partners, RGGI, etc.

California Cap in million MtCo2e



2013: 162.8
2014: 159.7

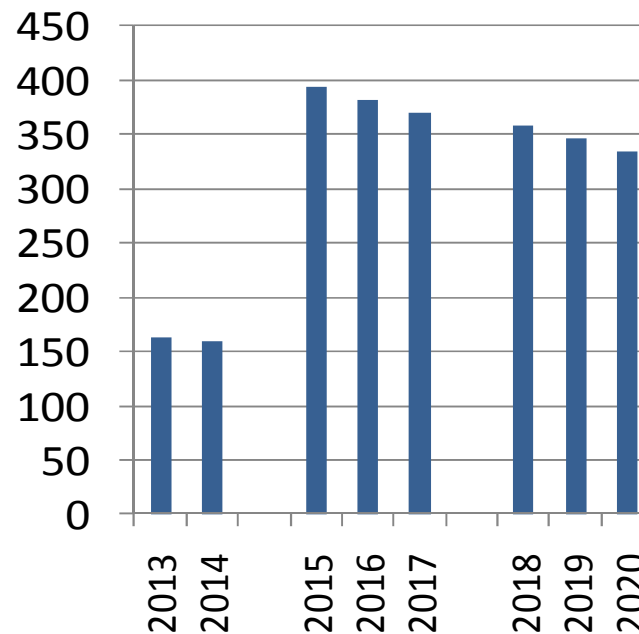
Compliance Period I (2013 - 2014)

2015: 394.5
2016: 382.4
2017: 370.4

Compliance Period II (2015 – 2017)*

2018: 358.3
2019: 346.3
2020: 334.0

Compliance Period III (2018 – 2020)



Total approximate Allowances from 2013 – 2020: **2.5 billion**

Total approximate Offsets allowed through 2020: **201 million** (8% of compliance obligation)

* Transportation sector emissions added to the cap

The “Four Buckets” of CA Carbon Products



Active Participants

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

California Carbon Allowances (CCAs)

Primary: auctions/free allocations. **Secondary:** exchange-cleared (ICE) & OTC bilateral forwards/futures/options ISDA contracts. No spot market yet.

California Carbon Offsets (CCOs)

Trades OTC bilateral under ISDA/ERPA. Forwards are most common, no spot market yet. Deliverable is an ARB-issued Offset.

Early Action Credits (AB32-eligible CRTs)

Trades OTC bilateral under ERPA. Spot/forward/options contracts most common. CRTs that are eligible to be converted into CCOs under AB 32.

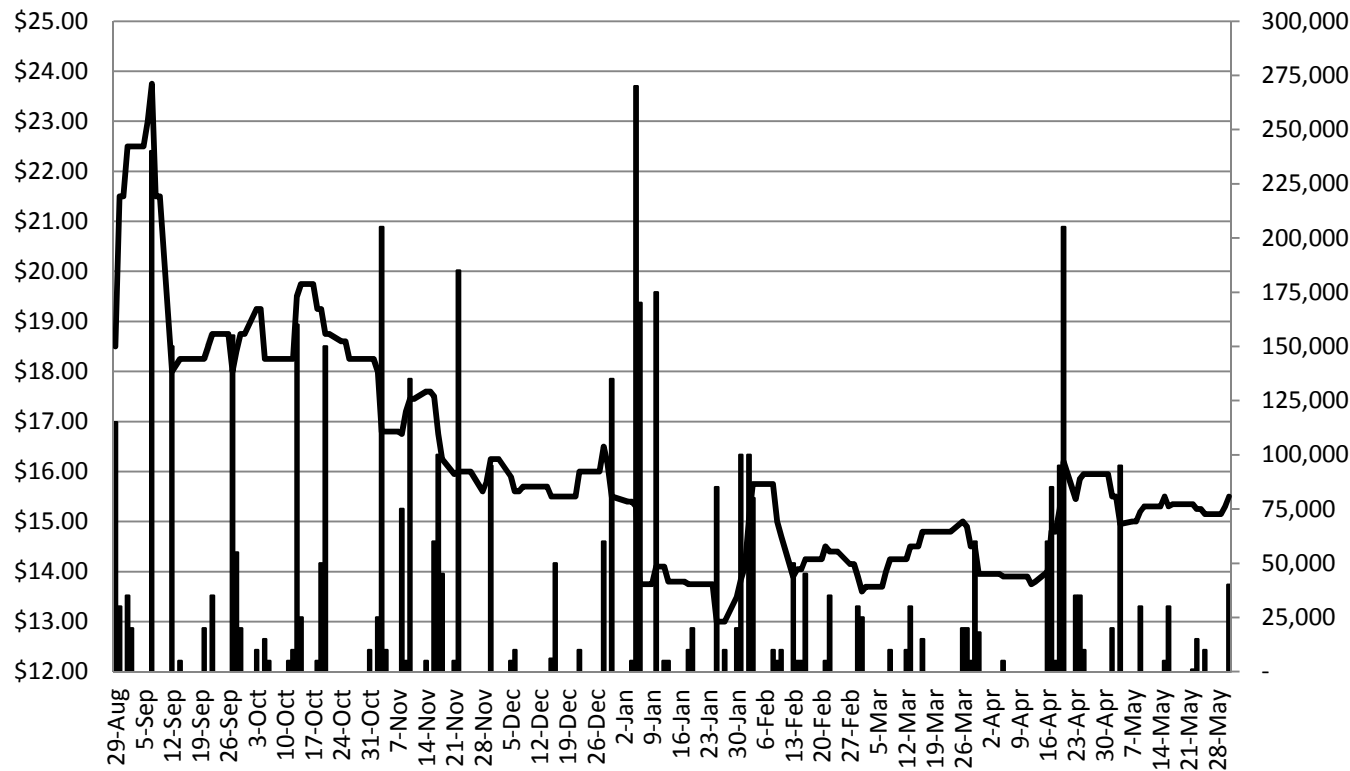
Potential Early Action Credits

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

Benchmark California Carbon Allowance (CCA)



December 2013 V13 ICE-cleared CCA



Source: Intercontinental Exchange

■ Volume — Daily Price Settlement

High: \$24.25 on 9/7/2011

Low: \$13.00 on 1/25/2012

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

Monthly Traded Volumes

September 2011 – 735,000

October 2011 – 445,000

November 2011 – 950,000

December 2011 – 276,000

January 2012 – 875,000

February 2012 – 380,000

March 2012 – 213,000

April 2012 – 535,000

May 2012 – 246,000

Average Daily Settlement

\$16.10 per contract

Offset Market Context



Perspective

The California offset compliance market is emerging. Offsets are traded over-the-counter (OTC) and under bilateral contracts with custom terms. The market infrastructure, i.e. registries, verifiers, aren't yet available. Therefore, buyers/sellers are agreeing contract terms based on expected infrastructure. Evolution assists 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*

Early Action Credits



ARB-approved CRTs (US ODS, Livestock Methane, Forestry, Urban Forestry) are called Early Action Credits and are subject to “Desk Review” when converted into compliance-grade offsets called California Carbon Offsets (CCOs). *Conversion Risk: risk CRTs are rejected.* Desk review includes:

1. Desk review must be done by an ARB-accredited verification body
2. If positive review, CRTs are retired and CCOs are issued into owners Holder Account on the ARB registry
3. If negative review, full verification is required

Estimated Add-On Costs: desk review: \$2,500-\$10,000?; regulatory verification: \$10,000-\$20,000 per verification?

Conversion Mechanics

- Still unclear what documentation is required for a Desk Review
- ARB-accredited verifiers available to market: July-August 2012
- Registries accredited and approved: June-July 2012
- Market tracking system available: September 2012

California Carbon Offset (CCO)



Product: Guaranteed ARB-issued Compliance Offset. Traded under ISDA contract.

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 a pre-agreed Index).

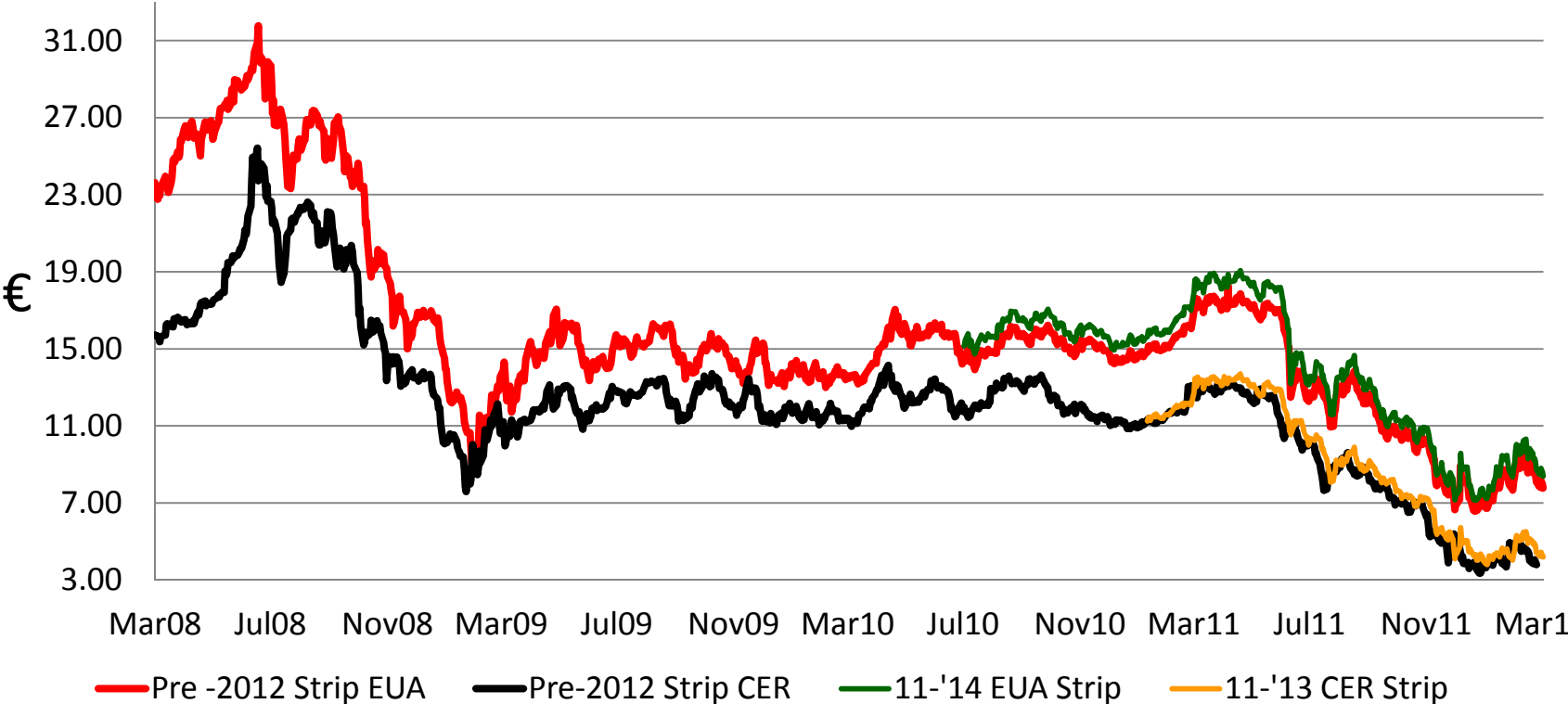
Payment: Due upon delivery.

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

Historical GCER/EUA Spread



EUA & CER: Price Action



Key California Carbon Price Drivers



Macro-economic (Fundamentals)

- Electrical load growth (2000-2009 → 0.7% compound annual growth rate, forecasted to be 1.4% 2010-2020 driven by population*)
- Economic output growth in California's industrial sectors

Power (Fundamentals/Accounting)

- Hydro season
- Performance of existing and new Renewable Energy contracts / RES target achievement
- Outcome of discussion on how imported power will be accounted for under AB 32 (asset-controlling suppliers, resource shuffling, etc.)

Transportation (Fundamentals)

- Added to cap in 2015; allocations for the sector unclear and several complimentary policies will impact emissions growth in the sector (i.e. clean car standards, LCFS)

Auctions (Market Behavior)

- How market participants bid (or consign) into the auctions

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)

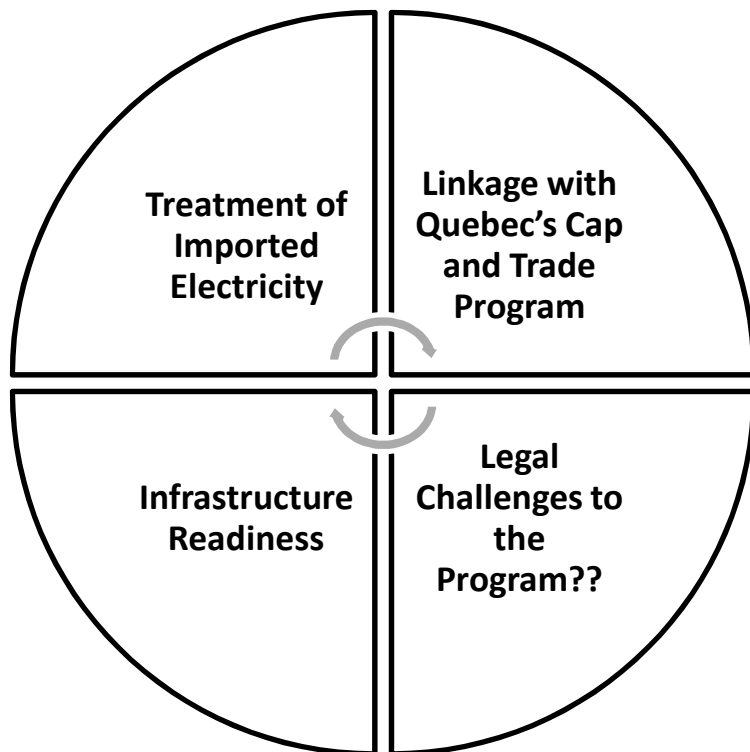
- Legal challenges (interstate commerce, auction revenue, offsets)
- Confidence in the first auction taking place in November

Closing Comments



- **Optimizing 8% offsets can significantly reduce the cost of compliance for regulated entities in California**
- **Understanding and actively managing offset risks can garner greater cost savings (risks include conversion, invalidation, counterparty, etc.)**
- **Entities not interested in managing offset risks can purchase the “Golden CCO” from a solid credit counterparty for incremental cost savings (roughly 10%)**
- **We expect offsets to play a major role in the compliance portfolio of most regulated entities in California**

Outstanding Issues for the Market



Issue #1: Imported Electricity

- **Resource shuffling definition, who owns the carbon obligation, PNW hydro & asset controlling suppliers?**

Issue #2: Quebec Linkage

- **June 28th Board Meeting, what does linkage mean for California**

Issue #3: Market Infrastructure

- **Auction platform, Market Tracking System**

Issue #4: Legal Challenges

- **What will happen with the LCFS lawsuit and how will that impact cap and trade?, Who could sue and why?, Auction revenues lawsuit?, Interstate commerce lawsuit?**

ALL ADDS UP TO UNCERTAINTY YIELDING HIGHER LIQUIDITY RISK FOR THE SHORT TERM

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