



An Overview of California's RPS

Evolution Markets Inc.

Presentation Outline



- Evolution Markets Inc.
- WREGIS
- California

Evolution Markets Overview



***Evolution Markets is the
Intersection of Environment, Energy, and Finance™***

Complete Financial Services for Green Markets and Clean Energy Sector

Market Execution Services

Structured Transactions

Merchant Banking

World's Largest Environmental Brokerage

More than 80 Professionals Worldwide

More than \$50 billion in Transactions

Global Offices in New York – London – San Francisco – Buenos Aires

Evolution Markets Commitment to Renewable Markets



RECs brokerage since 2002

REC brokerage, green power contracts, financial services

Compliance RECs (Northeast/Texas) from New York

Voluntary RECs (Nationwide) and Western Compliance RECs from San Francisco

Market's only Green-e approved broker

Market's most honored brokerage



Environmental Finance Magazine Customer Survey
Best Renewables Broker-North America
(2008, 2007, 2006, 2005, 2004, 2003)



RISK MANAGEMENT • TRADING • FINANCE

energy risk

Energy Risk Annual Rankings
Best Broker-North America Environmental Markets
(2007, 2006, 2004)



Energy Business

Silver Award Winner 2005

Renewable Energy

 *The Intersection of Environment,
Energy and Finance.*

RECs 101

- **Why RECs?**
- **What are RECs?**
- **RECs Terminology**

Compliance Markets: Pricing



- RPSs vary, so do the markets they create...
- The impact of an RPS is a function of supply (**eligible resources**) and demand (**percentage requirements**), enforced by **penalties**...
 - Maine: 30% requirement, but 50% of supply qualifies → price ~\$0.20
 - Massachusetts: 3.5% requirement ('08), but limited resources qualify, and \$58.58 “alternative compliance payment” → prices \$50+

Compliance Markets



- Renewable Portfolio Standards (RPS)
- Differ state to state: prices differ- Makes some states are more attractive than others to renewable energy developers.
- Buyers indifferent to technology (insofar as it qualifies)
- Limited by geographic region where REC is generated
- Approximate total volumes required in the compliance markets for 2009 in California:

3 Major IOUs = 58,428,373 MWWhs

Municipalities = 14,850,007 MWWhs

WREGIS



- REC tracking and accounting system for WECC region
- CPUC and CEC determined fully operationally Q4 2008
- Needed for Western RPS compliance
- Up to 75 day retroactive time period from facility's complete registration

California Snapshot



- Investor Owned Utilities (IOUs), Electric Service Providers (ESPs), Community Choice Aggregators (CCAs): **20% of retail sales come from CEC certified renewable power by 2010**
- Municipalities: **follow the “intent” of the Legislature**

California Energy Commission



- CEC required to design and implement a tracking and accounting system (WREGIS came online June '07)
- CEC required to define and certify qualifying renewables
- Responsible for awarding SEPs

California Public Utilities Commission



- Tasked with creating a Tradable REC program (TREC)
TRECs defined October, 2008
- Must approve all IOU renewable contracts

California: Old Market Rules



- Shortfalls made up within three years
- WECC transmission connection & COD is 1/1/2005 or later
- Delivery Rules: Out-of-state green power delivered into CA,
- Approximate total volumes required in the compliance markets for 2009 in California:

3 Major IOUs = 58,428,373 MWhs

Municipalities = 14,850,000 MWhs

California – Market Outlook



California Total Renewable Demand Forecast			
Year	Energy Sales*	RPS	Renewable Demand*
2008	288,975,574	17.89%	51,697,730
2009	293,020,925	19.94%	58,428,372
2010	297,062,377	20.00%	59,412,475
2011	301,229,787	21.03%	63,348,624
2012	305,303,010	22.11%	67,502,496
2013	309,147,629	23.24%	71,845,909
2014	312,877,581	24.44%	76,467,281
2015	316,574,758	25.69%	81,328,055
2016	320,177,810	27.01%	86,480,026
2017	323,630,005	28.40%	91,910,921
2018	327,085,422	29.86%	97,667,707
2019	331,185,851	31.39%	103,959,239
2020	335,337,683	33.00%	110,661,435

*MWh (Total Energy Sales forecasted by CEC)

California – Market Outlook Munis



California Total Renewable Demand Forecast - Munis			
Year	Energy Sales*	RPS	Renewable Demand*
2008	78,023,405	17.54%	13,685,305
2009	79,115,650	18.77%	14,850,008
2010	80,206,842	20.00%	16,041,368
2011	81,332,042	21.03%	17,104,128
2012	82,431,813	22.11%	18,225,674
2013	83,469,860	23.24%	19,398,395
2014	84,476,947	24.44%	20,646,166
2015	85,475,185	25.69%	21,958,575
2016	86,448,009	27.01%	23,349,607
2017	87,380,101	28.40%	24,815,949
2018	88,313,064	29.86%	26,370,281
2019	89,420,180	31.39%	28,068,995
2020	90,541,174	33.00%	29,878,587
*MWh (Munis, forecast from CEC reported data)			

California: Market Rules - history



- 2006: Evolution brokers first synthetic REC / quasi bundled deal
- 2008: Transaction is finally approved at CPUC
- 2008/(2009): Massive series of similar deal structures are executed
- DEC 08: TREC decision 1 (100% tRECs)
- MARCH 09: TREC decision 2 (5% tRECs – effectively 100%)
- OCT 09: SB 14 and AB 64 pass legislature and are vetoed by Gov. (25% tRECs – effectively 100%)
- DEC 10: TREC decision 3 (25% tRECs – effectively 25%)
- MAR 10: TREC decision 3 challenged and stayed
- CURRENT: SB 722 ... (10% tRECs / 15% long term synthetic tRECs / 75% CAISO connected/dynamically scheduled)

Now What?



- If SB 722 passes, THEN ...
- If SB 722 does not pass THEN ...

- 2010 – 2011: Some Sellers of WECC located products may find there way to sell into California

- Largely, (as compared to 2008 – 2010): California will NOT be buying PNW Renewable Supply

- What will this mean for PNW RPS compliance?

- 2012 and beyond ...

Voted Top Renewables Broker – North America

2002-2008 Environmental Finance Customer Survey

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