



The OTC North American GHG Emissions Landscape ...and what's up in the U.S.!?

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Chicago, Illinois*

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AWARD WINNING BROKERAGE PLATFORM



Evolution Markets is a market leading commodities brokerage firm focused on all environmental and clean energy markets

ENVIRONMENTAL MARKETS

- **CARBON CREDITS & ALLOWANCES**
- **RENEWABLE ENERGY CREDITS**
- **SO₂ EMISSIONS ALLOWANCES**
- **NO_x EMISSIONS ALLOWANCES**
 - **HOUSTON/GALVESTON NO_x**
 - **RECLAIM (L.A. NO_x & SO₂)**
- **WEATHER DERIVATIVES**
- **CATASTROPHIC RISK DERIVATIVES**

ENERGY MARKETS

- **GREEN POWER TRANSACTIONS**
- **BIOFUELS**
 - **ETHANOL**
 - **BIODIESEL**
- **OTC PHYSICAL COAL**
- **OTC COAL DERIVATIVES**
- **NATURAL GAS**
- **NUCLEAR FUELS**

- **MERCHANT BANKING, CARBON AND RENEWABLE ENERGY TEAMS WORK TOGETHER TO PROVIDE COMPLEMENTARY SERVICES TO PROJECT DEVELOPERS; ENHANCE MARKET INSIGHT AND LEVERAGE; "EVOFINANCE"**
- **INTEGRATED SERVICES CREATE A SEAMLESS TRANSACTION PROCESS**

LEADERSHIP IN THE MARKETS WE SERVE



2000 2001 2002 2003 2004 2005 2006 2007 2008



Magazine Customer Survey

Top SO ₂ Allowance Broker	🏆	🏆	🏆	🏆	🏆	🏆	🏆	🏆	🏆
Top NO _x Allowance Broker		🏆	🏆	🏆		🏆*	🏆*	🏆*	🏆*
Top EU GHG Allowance Broker				🏆	🏆	🏆*	🏆*	🏆*	🏆*
Top U.S. GHG Credit Broker						🏆*	🏆	🏆	🏆
Top U.S. Renewables Broker			🏆*	🏆	🏆	🏆	🏆	🏆	🏆
Top RECLAIM NO _x Allowance Broker						🏆	🏆	🏆	🏆
Top U.S. Emission Reduction Credit Broker						🏆	🏆	🏆	
Top Kyoto Credits Broker							🏆*	🏆	🏆
Top Weather Derivatives Broker				🏆*	🏆*	🏆*	🏆*	🏆*	🏆*



PointCarbon
Carbon Market Awards
2005: Best Broker



Best Specialist Broker ('08)
House of the Year:
European Emissions ('07)
Weather / Emissions ('04)

Best Broker, US Physical Forwards (Coal)					🏆	🏆	🏆	🏆	🏆
Best Broker, Europe ETS Carbon Credits						🏆		🏆*	🏆*
Best Broker, U.S. Environmental Products					🏆		🏆	🏆*	🏆*
Best Broker, Western U.S. Nat Gas Short-term							🏆*	🏆*	🏆*
Best Broker, Western U.S. Nat Gas Long-term							🏆*	🏆*	🏆*
Best Broker, U.S. Weather Swaps Brokerage					🏆*	🏆*	🏆*	🏆*	🏆*
Best Broker, European Weather Derivatives Brokerage							🏆*	🏆*	🏆*



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*category runner-up

The Intersection of Environment, Energy and Finance.

NORTH AMERICAN REGULATORY LANDSCAPE



U.S. CARBON TRADING ACTIVITY RAPIDLY PICKING UP DUE TO THE FOLLOWING:

- **FEDERAL GOVERNMENT MOVING RAPIDLY - HERRY-BOXER SENATE BILL INTRODUCED WITH VOTE EXPECTED IN 2009 FOLLOWING POSITIVE HOUSE VOTE OF JUNE, 2009**
 - **ON FLOOR OCTOBER 27, 2009**
 - ***INTRODUCTION OF FAVORABLE LANGUAGE ON NUCLEAR ENERGY IS EXPECTED TO BRING ALONG A NUMBER OF REPUBLICAN SENATORS (E.G., MCCAIN, GRAHAM, ETC.)***
 - **MARKET FOR PRE-COMPLIANCE OFFSETS RAPIDLY EMERGING AS EMITTERS BEGIN TO HEDGE**
 - **REGIONAL FRAMEWORKS DIFFER IN PROGRESS**
- MADE IN THE FOLLOWING AREAS:**
- ***CALIFORNIA***
 - ***10 NORTHEASTERN STATES***
 - ***6 MIDWEST STATES***

THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009



ALLOWANCE DISTRIBUTION

PROPOSED 85% ALLOCATION FOR ELECTRICITY SECTOR, OIL REFINERIES, NATURAL GAS, STATES, AND OTHERS, AND 15% AUCTION.

• DISTRIBUTION OF ALLOCATION WIDELY DIFFERENT BETWEEN ELECTRICITY, REFINING SECTORS: APPROXIMATELY 40% ALLOCATION TO ELECTRICITY SECTOR VS. 2% TO REFINING SECTOR.

• CONSIDER: WHERE DO AUCTION REVENUES GO?:

• RGGI STATES ADAMANTLY SAID FUNDS GO TOWARDS CLEAN ENERGY AND CARBON REDUCTIONS. NY GOVERNOR JUST PROPOSED DIVERTING \$100MM OF FUNDS TO STATE COFFERS.

BANKING/BORROWING

- UNLIMITED BANKING**
- SOURCES CAN BORROW ALLOWANCES WITHOUT INTEREST ONE YEAR AHEAD**
- SOURCES CAN BORROW ALLOWANCES ONE TO FIVE YEARS AHEAD FOR UP TO 15% OF THEIR COMPLIANCE OBLIGATION. INTEREST IS 8% PER YEAR.**

STATE PROGRAMS

EMISSIONS ALLOWANCES ISSUED BEFORE DECEMBER 31, 2011 BY EITHER CALIFORNIA OR THE REGIONAL GREENHOUSE GAS INITIATIVE (RGGI) CAN BE EXCHANGED FOR FEDERAL CARBON ALLOWANCES. THE

THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009



OFFSETS

- **AFFECTED SOURCES ARE ABLE TO USE UP TO 2BB TONS IN TOTAL ANNUALLY 50% INTERNATIONAL AND 50% DOMESTIC**
- **DOMESTIC OFFSETS CAN BE SUBMITTED 1:1 FOR AN ALLOWANCE UNTIL 2018 THEN 1.25: 1**
- **FORESTRY WILL PLAY A VERY LARGE ROLE IN INTERNATIONAL OFFSETS**
- **SECTORAL APPROACHES WILL PLAY A LARGE ROLE IN INTERNATIONAL OFFSETS**

STANDARDS FOR OFFSETS MUST STIPULATE

- **REDUCTIONS, AVOIDANCE, SEQUESTRATION OF GHGS**
- **OFFSETS MUST BE VERIFIABLE AND ADDITIONAL**
- **ADDITIONALITY:**
 - **NOT REQUIRED BY LAW**
 - **PROJECTS STARTING AFTER JAN 01, 2009**

EARLY OFFSET SUPPLY

- 6 • **PROJECTS STARTED AFTER JAN 01, 2001, 1 FOR 1 CREDITS ARE ONLY AVAILABLE FROM THESE PROJECTS AFTER JAN 01, 2009**
- **PRE-2009 OFFSETS ALL NEEDED IN 1 YEAR 4 TO BE CAPPED AT +/- \$2.60**

THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009



AUCTIONING: STARTS AT 20% IN 2012 AND GOES TO 80% IN 2025; RESERVE FLOOR PRICE OF \$10 PLUS 5% PER YEAR PLUS ANNUAL CPI

STRATEGIC RESERVE

EPA IS DIRECTED TO HOLD A 'STRATEGIC RESERVE' OF 2.5 BILLION ALLOWANCES. THE AGENCY CAN MAKE A PORTION OF THESE ALLOWANCES AVAILABLE FOR SALE AT AUCTION IF PRICES RISE TO UNEXPECTEDLY HIGH LEVELS.

MARKET REGULATION

CFTC LANGUAGE AS PASSED IN HOUSE VERSION EXTREMELY TROUBLING TO MARKETPLACE INCLUDING "NATURALS"



Offsets Applicable to the NA Market

N.A. OFFSET TYPES



COMMODITY	PROJECT TYPE	LOCATION	POLICY IMPLICATION
ALBERTA-BASED OFFSETS	IS GOVERNMENT APPROVED PROTOCOLS INCLUDING WIND, LANDFILL GAS, NO TILL SOIL, BIOMASS TO ENERGY, AND SEVERAL OTHERS	ALBERTA ONLY	COMPLIANCE - SPECIFIED GAS EMITTERS REGULATIONS
RGGI OFFSETS	LANDFILL GAS, HEXAFLUORIDE REDUCTIONS, AFFORESTATION, AGRICULTURAL METHANE, ENERGY EFFICIENCY	RGGI FOOTPRINT STATES	COMPLIANCE - REGIONAL GREENHOUSE GAS INITIATIVE
CLIMATE RESERVE TONNE (CRT)	LANDFILL GAS, LIVESTOCK METHANE, FORESTRY; COAL MINE METHANE (VAM & DRAINAGE) (SEVERAL OTHER UNDER REVIEW)	UNITED STATES (SOON TO EXPAND TO MEXICO AND CANADA) FORESTRY - WAS CA ONLY; RECENTLY EXPANDED	PRE-COMPLIANCE - POTENTIALLY AB32 / WCI AND VOLUNTARY - APPROVED BY THE VOLUNTARY CARBON STANDARD

N.A. OFFSET TYPES



COMMODITY	PROJECT TYPE	LOCATION	POLICY IMPLICATION
VOLUNTARY CARBON UNIT (VCU)	ANY CDM PROJECT TYPE	INTERNATIONAL	PURE VOLUNTARY; INTERNATIONAL FORESTRY VCUS COULD POTENTIALLY BE PRE-COMPLIANCE
GOLD STANDARD VERS	RENEWABLE ENERGY, ENERGY EFFICIENCY	INTERNATIONAL	PURE VOLUNTARY
VER+	ANY CDM/JI PROJECT TYPE	INTERNATIONAL	PURE VOLUNTARY
CARBON FINANCIAL INSTRUMENT (CFI)	NO TILL AGRICULTURE, LANDFILL GAS, LIVESTOCK METHANE, FORESTRY, RENEWABLE ENERGY, OTHER	UNITED STATES	MANDATORY IF A REPORTING MEMBER, BUT VOLUNTARY OTHERWISE

OTC PRE-COMPLIANCE MARKET



WHOLESALE CRT PRICING

- PRICE CURVE IS CONTANGO SHAPED WITH STEEPEST INCREASE 2012 +
- CA-BASED CRTS ATTRACT A SLIGHT PREMIUM TO NON-CA CRTS
- FORESTRY: 7.00 BID / 10.00 OFFER
- DAIRY: 6.50 BID / 8.50 OFFER
- LANDFILL GAS: 6.00 BID / 7.50 OFFER

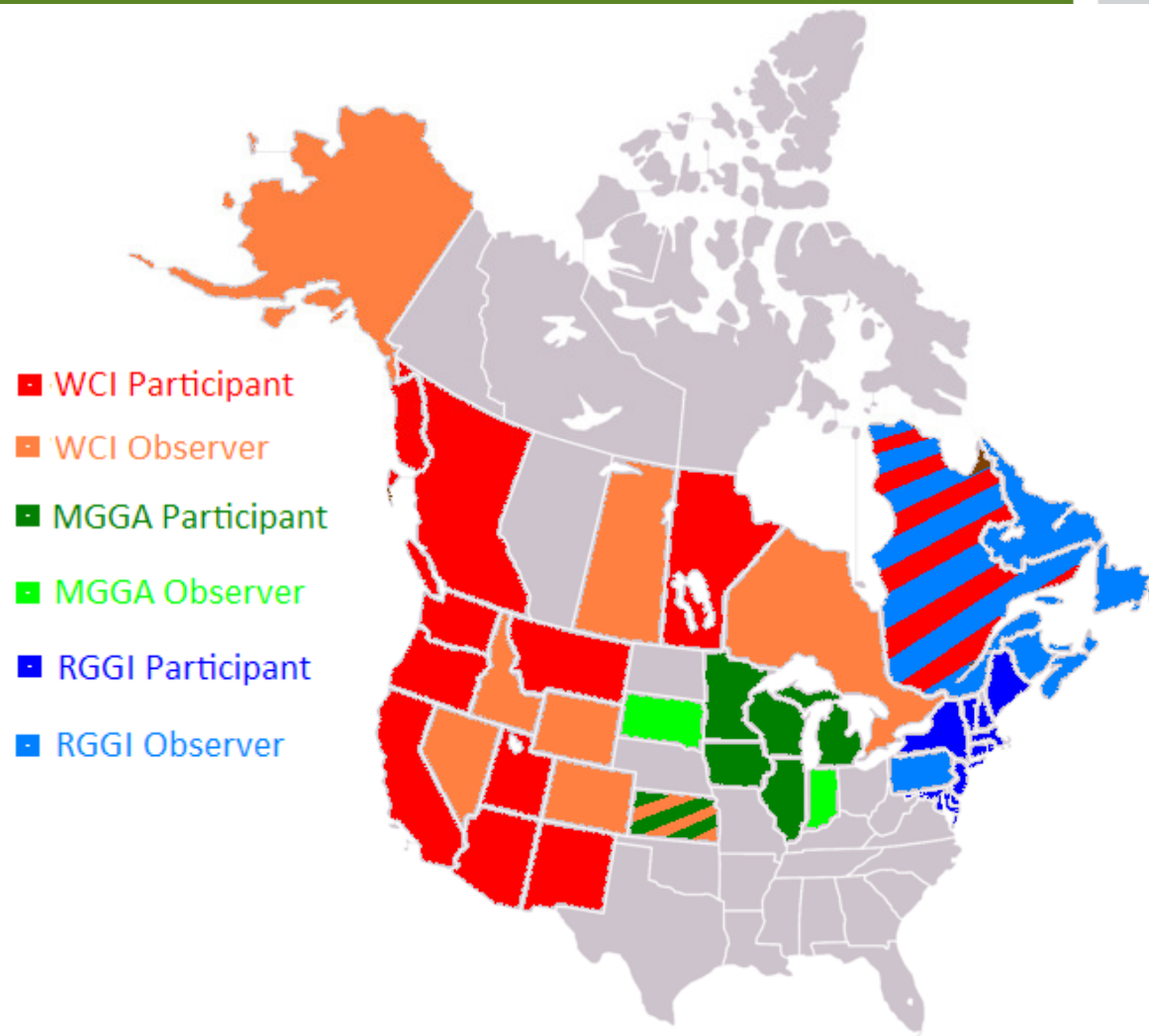
LIQUIDITY

- APPROXIMATELY 1.6MM CRTS ISSUED TO DATE
- SPOT '08 VOLUME IS LARGELY FORESTRY, BUT SIGNIFICANT FORWARD VOLUMES OF LANDFILL GAS
- 11 - IMPROVED LIQUIDITY WITH EMITTERS COMING INTO MARKET; DEVELOPING SECONDARY MARKET

REGIONAL CLIMATE AGREEMENTS



EVOLUTION
MARKETS



CALIFORNIA: ASSEMBLY BILL (AB) 32



SEPTEMBER 2006: SOLUTIONS ACT

- **1990 LEVELS BY 2020**
- **2020 TARGET: 427 MMT CO₂E = 30% REDUCTION FROM BAU 2020 LEVELS**

DECEMBER 2008: CARB APPROVES CLIMATE CHANGE SCOPING PLAN

- **CAP AND TRADE SYSTEM COVERING 85% OF EMISSIONS**
- **EARLY DISCREET ACTIONS EFFECTIVE JANUARY 1, 2010 - LFG, LCFS, OTHERS**

SCOPING PLAN MEASURES:

- **ENERGY EFFICIENCY PROGRAM, INCLUDING BUILDING AND APPLIANCE STANDARDS**
- **CLEAN VEHICLE STANDARDS (PAVLEY), INCLUDING THE LOW CARBON FUEL STANDARD**
- **RENEWABLE PORTFOLIO STANDARD**

13 CAP AND TRADE PROGRAM

- **OTHERS**

A.B.32 - CALIFORNIA'S GLOBAL WARMING

MANDATORY GHG REPORTING RULE

- **RULE PASSED DECEMBER 2007**
- **COVERED FACILITIES REPORTED GHG INVENTORIES ONLINE JUNE 1, 2009**
- **FACILITIES SHOULD BE ESTABLISHING INTERNAL REPORTING PROCESSES, PROCEDURES AND DEFINE POLICIES AND PERSONNEL FOR GHG REPORTING**

AB 32: MARKET COMPLIANCE INSTRUMENTS (FEDERAL COMPLIANCE TOOL)



ALLOWANCES:

- ISSUED BY THE CA GOVERNMENT
- COVERED ENTITIES MUST HOLD 1 ALLOWANCE FOR EVERY 1 MTCO₂E EMITTED
- % FREELY ALLOCATED AT FIRST, TRANSITIONING TO 100% AUCTION LIKELY

OFFSETS

- PROJECT-BASED REDUCTIONS WHICH RECEIVE CREDIT FOR "OFFSETTING" EMISSIONS
- CREDITS CAN BE USED IN PLACE OF ALLOWANCES 1:1 FOR COMPLIANCE
- PROVIDES FOR LOW COST REDUCTIONS
- 49% OF REQUIRED REDUCTIONS FROM OFFSETS

OFFSETS (CONT'D):

- PRIORITY LIST: BOARD-APPROVED OFFSET PROTOCOLS FOR DAIRY METHANE AND FORESTRY FROM THE CLIMATE ACTION RESERVE
- OTHER POTENTIAL OFFSET TYPES:
 - COAL MINE METHANE
 - LANDFILL GAS
 - OZONE DEPLETING SUBSTANCES
 - CO-DIGESTION
- NO GEOGRAPHIC LIMIT
- REVIEWING AND APPROVING:
 - PERFORMANCE-BASED WITH ABILITY TO APPROVE SPECIFIC PROJECTS, DIRECTLY

WESTERN CLIMATE INITIATIVE (WCI)



OVERVIEW

- **LAUNCHED IN FEBRUARY 2007**
- **REDUCTIONS: 15% BELOW 2005 LEVELS BY 2020 = CALIFORNIA GOALS**
- **CAP AND TRADE**
- **WILL ULTIMATELY COVER 90% OF WCI FOOTPRINT EMISSIONS**
- **UNLIMITED BANKING; NO BORROWING**
- **PARTNERS MUST ADOPT REGULATIONS TO PARTICIPATE**
- **COVERED INDUSTRIES:**
 - **ELECTRICITY GENERATION (25K MTCO₂/YR+)**
 - **INDUSTRIAL/COMMERCIAL FACILITY FUEL COMBUSTION**
 - **TRANSPORTATION SECTOR**

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PARTNERS
ARIZONA
BRITISH COLUMBIA
CALIFORNIA
MANITOBA
MONTANA
NEW MEXICO
ONTARIO
OREGON
QUEBEC
UTAH
WASHINGTON

OBSERVERS
ALASKA
COLORADO
IDAHO
KANSAS
NEVADA
SASKATCHEWAN
WYOMING

MEXICO
CHIHUAHUA
COAHUILA
NUEVO LEON
SONORA
TAMAULIPAS



Offsets & Pricing in U.S. Market

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Chicago Climate Exchange – CFI's



Regional Greenhouse Gas Initiative Overview



- **MANDATORY CAP AND TRADE PROGRAM BETWEEN 10 NORTHEASTERN STATES**

- AUCTION BASED ALLOWANCE ISSUANCE
- REGULATES 25+MWE GENERATORS
- ANNUAL CAP OF 188 MILLION SHORT TONS
- FIRST CONTROL PERIOD 2009 - 2012

Auction 1	9/25/2008	2009	12,565,387	\$3.07
Auction 2	12/17/2008	2009	31,505,898	\$3.38
Auction 3	3/18/2009	2009	31,513,765	\$3.51
Auction 3	3/18/2009	2012	2,175,513	\$3.05
Auction 4	6/17/2009	2009	30,887,620	\$3.23
Auction 4	6/17/2009	2012	2,172,540	\$2.06

- **WAXMAN MARKEY ACES**

- RGGI ALLOWANCES WILL HAVE A FEDERAL ALLOWANCE VALUE EQUAL TO THE AVERAGE RGGI AUCTION PRICE
- CURRENT RGGI AVERAGE AUCTION VALUE FOR VINTAGE 2009 IS \$3.34, DEC09 LAST TRADED \$2.94

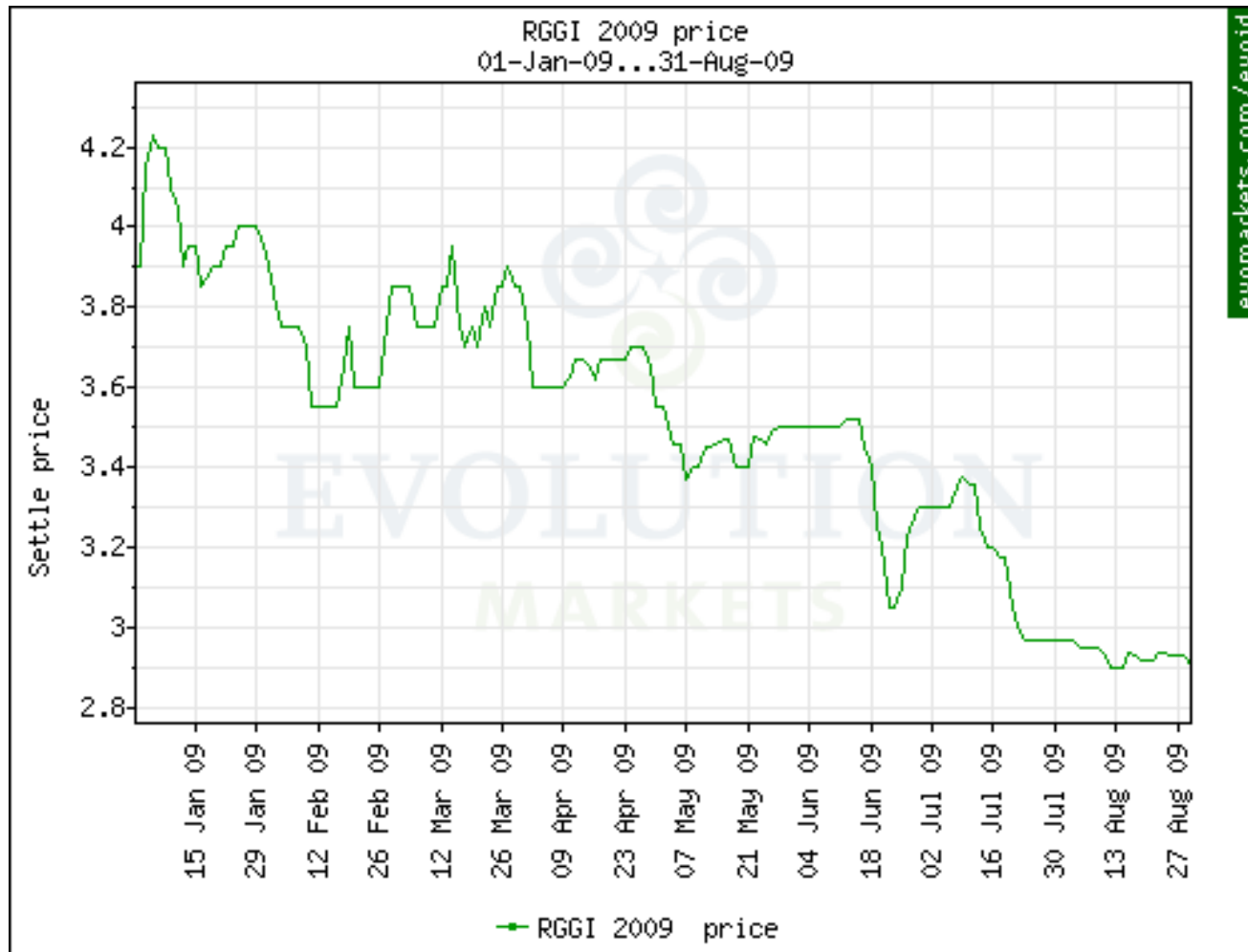
- **SECONDARY MARKET TRADING**

- PRICING IS NOW SPLIT BETWEEN ACTUAL SUPPLY/DEMAND FUNDAMENTALS AND ACES VALUE
- \$1.87 VS. \$3.34 VS. \$2.82 (WORST CASE AVERAGE)

19 AVERAGE DAILY VOLUME IS AROUND 2MM TONS, BUT OPEN INTEREST CHANGES ARE VERY SMALL

- **DCC1 RECEETS**

RGGI DEC '09



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