Agenda

• Introduction
• Life of Renewable Energy Credit
• Life of a White Tag (Energy Efficiency)
• Carbon Markets
• Keys to Success
• Demonstration
Life of Renewable Energy Credit:

How New England, Mid-Atlantic, Texas, and the Western States (Launch 2007) Manage the Regions’ Environmental Commodities

John Melby
Senior Vice President
APX Inc.
Agenda

• Primer on “Mechanics”

• Review of Regional REC Markets
About APX

- Provider of web-based infrastructure for environmental & energy markets
- Enables effective policy implementation
- 10 years in the business
Certificate-Based Accounting Verification Methodology

Verified Unit

Attribute A

Attribute B

Attribute C

One Unit = One Certificate (Regardless of Value)
Lifecycle of the Environmental Commodity

- Created
- Validated
- Tracked
- Traded
- Retired

“The Bank & the Mint”
Texas RECs
NEPOOL GIS
PJM GATS
WREGIS

plus Canadian Provinces

plus Baja Norte
Environmental Markets are Growing Rapidly (PJM, NEPOOL, ERCOT)

625 Total Account Holders

More than a Billion Certificates
Life of a White Tag:
How Energy Efficiency Markets are Operating in the United States Today

Mel Jones
President & CEO
Sterling Planet
Carbon Markets:
Creating an Efficient and Effective Marketplace

Martin Whitaker
Director
MissionPoint Capital
Keys to Success:

Infrastructure, Market Neutrality, and Synergies
Success Factors

• Integrity
  – Environmental policy is faithfully implemented in the market system
  – Stakeholders must be confident that the attribute is actually available to the market – real and trusted
  – Market cannot allow a certificate to be sold more than once

• Quality of Information
  – Stakeholders have accurate information to manage their business
  – Information on supply and demand is readily available
  – Regulators have accurate and timely compliance information

• Technologically Advanced
  – Cost effective and efficient web-based management
  – Capable of very high data volumes, with 24/7 support
  – A level playing field for all stakeholders
Regional Market Systems

Existing Markets are Moving Beyond “RECs”

- New Environmental Commodities
  - Energy Efficiency & Conservation Certificates – CT

- Tracking All Generation, not just Renewables
  - NEPOOL, PJM

- Tracking Emissions
  - PJM GATS – CO2, SO2, NOx
  - NEPOOL: CO2, S02, NOx, CO, PM, VOCs, Hg

- Handling Forward Transfers
  - NEPOOL, WREGIS
A View for GHG Market Success

Extrapolating from today’s Mandatory REC Markets, success will require three strong tiers...

Policy Level
(rules for allowances/credits/offsets)

Regional Infrastructure Level
(commodity creation, serializing, verifying, tracking)

Transaction Level
(bilateral trades, exchanges, brokering, marketing)

Roles

• Regulators (State & Federal)
• NGOs
• Certifiers & Verifiers
• Registries
• Technology & Services Providers
• Brokers and Marketers
• Private Buying Networks
• Commodity Exchanges
• Bilateral Transactions
Trend 1: Cross Market Transactions Grow

Fewer Boundaries
Trend 2: Number of RPS States Keeps Growing
Trend 3: New Environmental Commodities are Emerging

Energy Efficiency
Trend 4: Environmental Commodities as groups of Attributes

RECs and Energy Efficiency as metric tons
Trend 5: Regions will continue to build on existing market infrastructure

Available today:

- Tracking all generation and all fuels
- Tracking emissions
- Tracking energy efficiency certificates
- Creation and retirement of certificates
- Compliance reporting
- Tracking CO2e allocations and credits?
null
Markets require **integrity** in Environmental Commodities

**On the trading of environmental attributes:**
“If there is an ambiguity, nobody wants to trade it. Brokers don’t want to mess with it. There are a lot of other opportunities out there.”

*Jeffrey Fort*
*Sonnenschein Nath & Rosenthal LLP*
*Environmental Trading Congress 2006*

“Integrity is the linchpin to both public and investor confidence,” the emissions-trading pioneer Dan Dudek told me. “Without integrity, investors won’t commit serious capital either to generate the supply of reductions necessary for trading or to buy the reductions in the first place.”

*Jeff Goodell*
*WSJ “Capital Pollution Solution?”*
*July 30, 2006*
Demonstration:

APX Environmental Market Depository™

Manages NEPOOL, PJM, ERCOT, and WREGIS (launch 2007)

Sakis Asteriadis
Senior Director
APX Inc.
Thank You

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Sterling Planet (sterlingplanet.com)
MissionPoint Capital (missionpointcapital.com)