Voluntary Carbon Markets
A Participant’s Perspective

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North American Carbon

 GHG emission trading since 1996
 Some of the first GHG emission reduction trades in North America
 100% Canadian owned
 www.northamericancarbon.com
Greening Canada Fund

- NAC shareholder in Green Power Action (GPA)
- GPA is Manager of Greening Canada Fund
  - Private placement Fund
  - For companies wishing to manage carbon footprint through carbon offsets
- www.greenpoweraction.com
  - Note: Securities of this Fund will be offered to selected investors only by means of a complete offering memorandum. This presentation does not constitute an offer of any security of this Fund to the general public.
“If the enemy is in range…..

 .......... so are you ! ”

Army Manual

“Talent is Never Enough”
by John Maxwell
Global Climatic Change

- Coined by CIA in a 1974 report
- Based on early 60s-70s crop failures in Asia/Soviet Union
- Geopolitical impact of food shortages
- *Clima* – Greek for ‘inclination of the sun’s rays’
Where we are – national emissions (2005 data)

- United States 7.2 GT
- China 7.0 GT
- Indonesia 3.1 GT
- Brazil 2.4 GT
- Russia 2.1 GT
- India 1.8 GT
- Canada 0.8 GT (0.56 Kyoto)

source: US GHG AMI
Markets

- Does Compliance transcend Voluntary – probably not
- Voluntary – set your own quality criteria and goals
- Different buyers – different markets?
- Price stratification
Markets – Pre-compliance

- Regulatory goals
- Financial objectives
- Corporate emitters with large liabilities
- Market players: buy low / sell high
- US – Canada
- Judgment call on acceptability – high risk
Markets – Voluntary

- Carbon neutrality goals
- CSR – PR objectives
- Separate from competition
- Individuals/NGOs/ENGOs
- Value – open to Buyer’s determination – their criteria/goals – low risk
Overview from a Voluntary Market Perspective

- Overview of technology, scale, and risk factors
- Sectors
- Due diligence
- Markets
Project type - Renewables

- Wind, solar, hydropower, geothermal
- Site specific issues
- Technological reliability
- Data collection
- Investment costs vary
- Financial industry – experienced
- Quantification and verification standards
Project Type

Methane/HFC destruction

- Landfill gas flaring
- EFW facilities
- Mine mouth methane
- Industrial Process controls – NO$_2$ capture
- SF$_6$ capture – utilities
- Measurement / baselines
Project type – Fuel Switching

- General term that covers a myriad of applications
- Power plant retrofits to bio-based transport fuels
- Usually economic – in-house projects
- Baseline data collection an issue
Project type - Energy Efficiency

- Cogeneration – building envelopes – consumer products – equipment upgrades
- Project scale key - aggregation
- Baseline data
- Ownership
- Electricity system dependent – emission factors
Project type - Forestry

- Industrial or urban
- Project scale - aggregation
- Baseline data – Afforestation /Reforestation
- Ownership
- Species impact
- Permanence
What about new technologies?

- Hydrogen – fuel cells
- Biofuels
- Carbon sequestration and storage
- Batteries/electric storage technologies
- Nuclear?
- Hybrid vehicles
Voluntary market –
Regime impact

- Geographic location wide open
- Impact to the extent of competition for offsets/credits
- Price implications
- RGGI, WCI, Canadian Federal regime, Alberta regime, CDM, JI
Quantification - standards

- Existing protocols: Alberta, CDM, etc.
- Custom build
- RGGI, WCI, Canadian Federal regime, Alberta regime, CDM, JI
- Your own review body/committee
Verification - standards

- Third party verifiers
- ISO 14064 standard
- VCS, CDM
- Verifier capability, certification and experience
Registration

- No current regulatory requirement
- Privately operated Registeries
- Fee for service
- Depends on the Buyer(s) requirements
- Seller may choose to register or wait for Buyer to decide
Supply Sectors

- **Industrial Sectors**
  - Power, Manufacturing, Waste Management

- **Social Sectors**
  - Institutional, Municipal, NGOs
Project Size

- How does size effect economics of project
- Scalability – aggregation opportunity
- Financing attractiveness
- Permits/approvals – minimum threshold
- PR value on small projects in social sector
Vintage/Volume

- When can we expect first delivery
- How much per year
- Delivery risk
- Annual volume growing or shrinking
- Is “newer” better?
Due Diligence –
Global Risk Factors

- Technical risk – proven technology or application
- Geographic risk – host nation
- Operating risk – fuel supply / feedstock
- Financial risk – secure partners
- Regulatory risks
- Environmental risks
- PR risk
Due Diligence
- Specific Factors

- Project developer – track record / background check
- Technology – track record
- Project location – local history
- Aggregator – title issues
- Due Diligence check list – ERPA
Cost Control Strategy

- Due Diligence
- Quantification
- Verification
- Legal Costs – manage and direct
- Transfer costs – Registry
Voluntary Markets
Motivation - Buyer

- Corporate Social Responsibility Goals
- Carbon Neutrality
- Reputation / Branding / Marketing
- Targeted funding to specific geographic region or sector
Voluntary Markets
Motivation - Seller

- Capture value not reflected in compliance market
- Potential retirement has value to some agencies
- Incremental revenue
- Contractual Risk – potentially less onerous
Voluntary Market - Recap

- Regulatory failure increases importance
- Differentiation on criteria not always recognized in a regulatory regime
- PR value versus compliance value
- Can co-exist with regulatory market; demand due to different drivers for both Buyers and Sellers
Thank-you

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