

Forest Carbon Offsets:

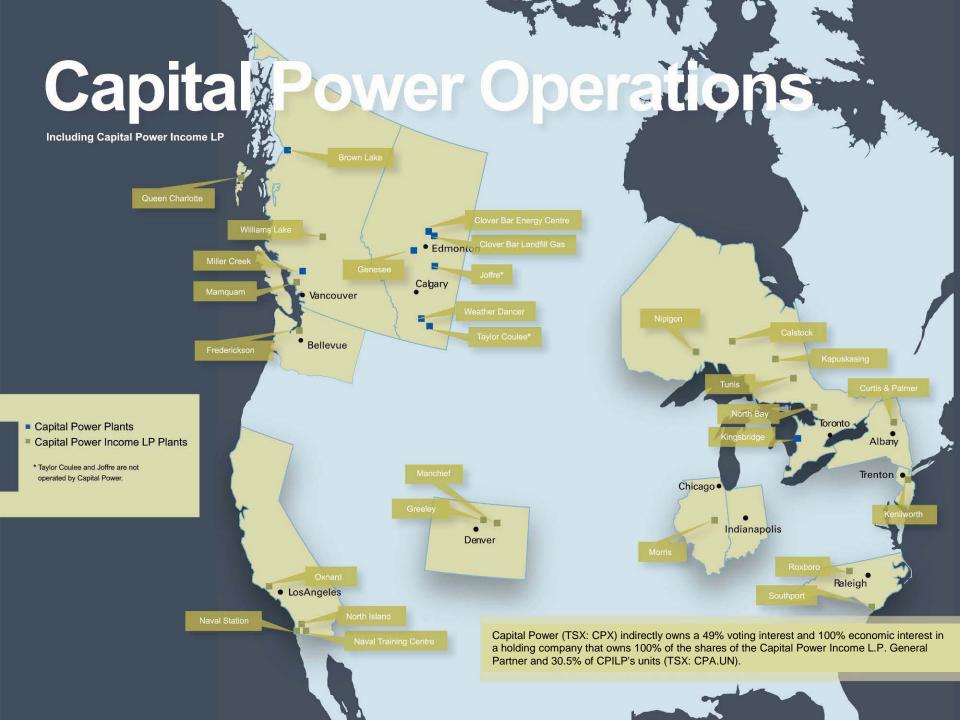
A Buyers Perspective

Alberta Forest Growth Association October 21, 2010

Andrew Hall
Capital Power Corporation



- 1. Introduction to Capital Power
- 2. Why Forestry Offsets
- 3. Buying Forestry Offsets
- 4. Project Characteristics
- 5. Conclusions



Introduction to Capital Power



- Headquartered in Edmonton, Alberta
- Capital Power is a growth-oriented North American power producer, building on more than a century of innovation and reliable performance.
- Capital Power has interests in 31 facilities in Canada and the U.S. totaling approximately 3,300 MW of generation capacity.
- BBB credit rating from Standard & Poor
- More than \$20 million invested in over seven million tonnes of verified offsets since 2007, with the total volume of offsets purchased and/or under contract exceeding 10 million tonnes
- Significant portfolio of GHG offsets developed or under contract from sources such as landfill gas, low tillage, forestry, N2O abatement and acid gas injection



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Why Forest Based Carbon Offsets?



Tenure:

Forest offset projects aligns with the longterm life span and accompanying liability of Capital Power's assets

Supply

Vast tracts of forest in Canada provide a ready supply and the ability to select project characteristics and geographies

<u>Cost</u>

Given the supply potential, forestry offsets will be a cost effective source of domestic, compliance quality offsets

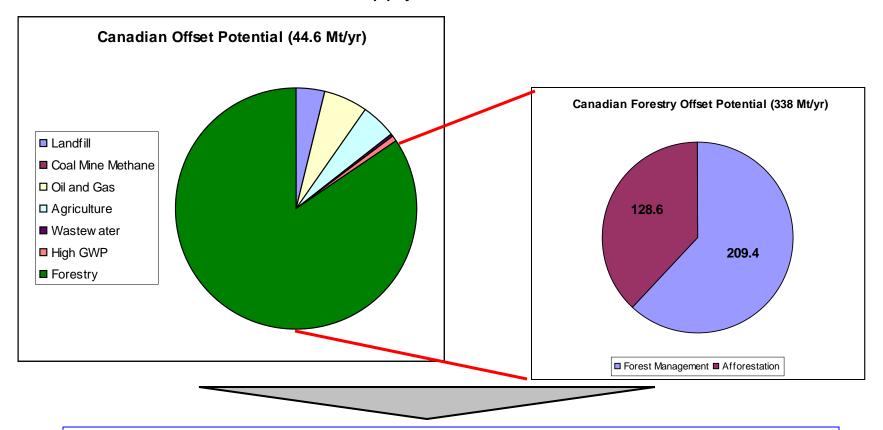
Co-Benefits

Numerous additional attributes; hydrology, bio-diversity, recreation, sustainable harvest opportunities

A Key Source of Supply



 Recent report put bio-sequestration (forestry and ag) at 88% of the Canadian offset market supply

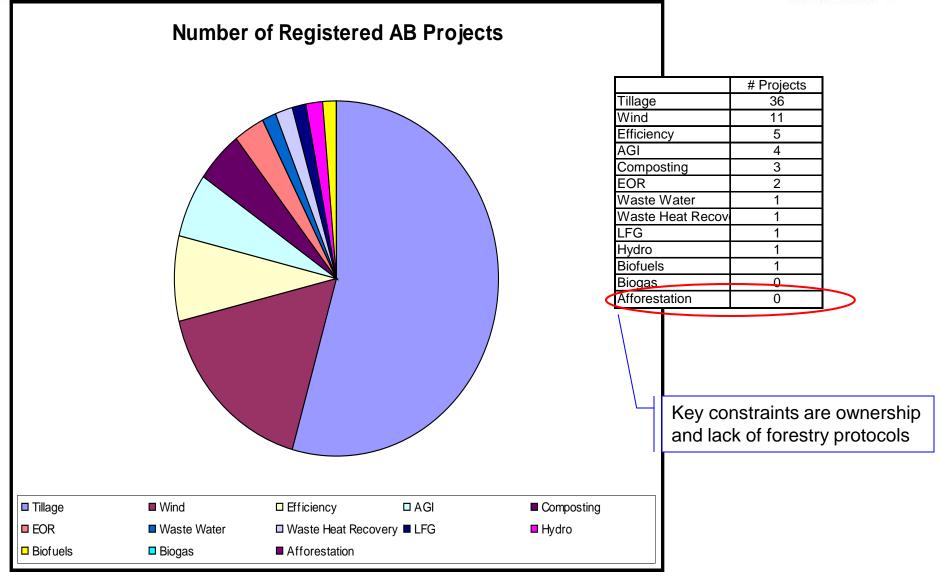


"Canada will have to rely almost exclusively on agricultural soil and forestry for domestic offset credits"

(New Carbon Finance. "North America Research Note." April 2009)

Alberta Supply...





US Supply

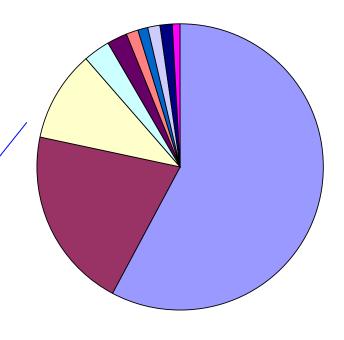




	# Projects
Landfill Gas Capture/Combustion	131
Livestock Gas Capture/Combustion	47
Improved Forest Management	23
Conservation-Based Forest Management	7
Reforestation	5
Avoided Conversion	3
Nitric Acid N2O- Secondary Catalyst	3
Organic Waste Digestion	3
Ozone Depleting Substances - Imports	0
Ozone Depleting Substances - U.S.	2

150 forestry projects in the pipeline or issuing!!

Fewer ownership issues and clear, implementable protocols



- Landfill Gas Capture/Combustion
- ☐ Conservation-Based Forest Management
- Nitric Acid N2O- Secondary Catalyst
- Ozone Depleting Substances U.S.
- Livestock Gas Capture/Combustion
- Reforestation
- □ Organic Waste Digestion

- □ Improved Forest Management
- Avoided Conversion
- Ozone Depleting Substances Article 5 Imports



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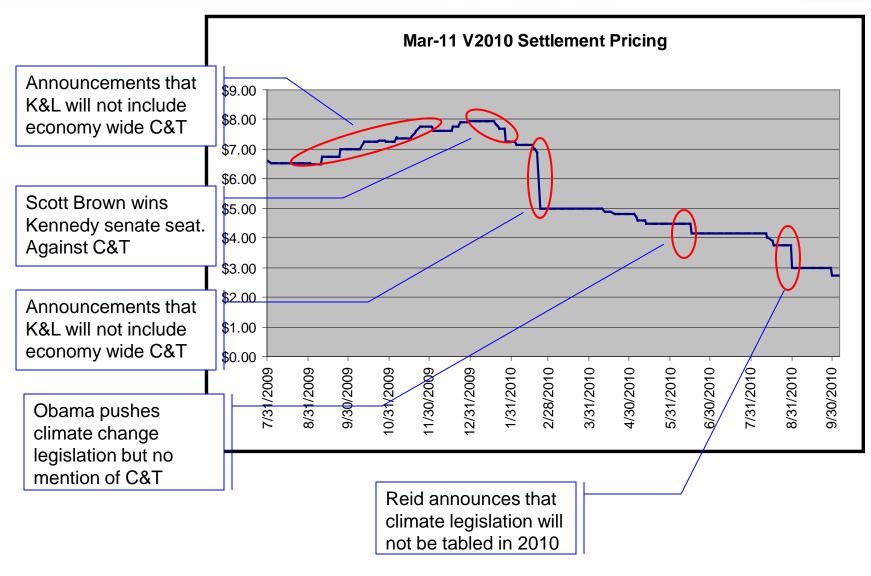
Experience Purchasing Forest Offsets



- Focused on both Canada and the US
- Three transactions to date all in the US
 - Conservation forestry
 - Improved forest management
- CAR Protocol
- Extensive due diligence process
 - prescriptive nature of the CAR protocol simplifies the process somewhat
- Typically good counterparty or project proponent
- Deals are frequently brokered rather than being bilateral
- Supply of forestry projects rapidly increase

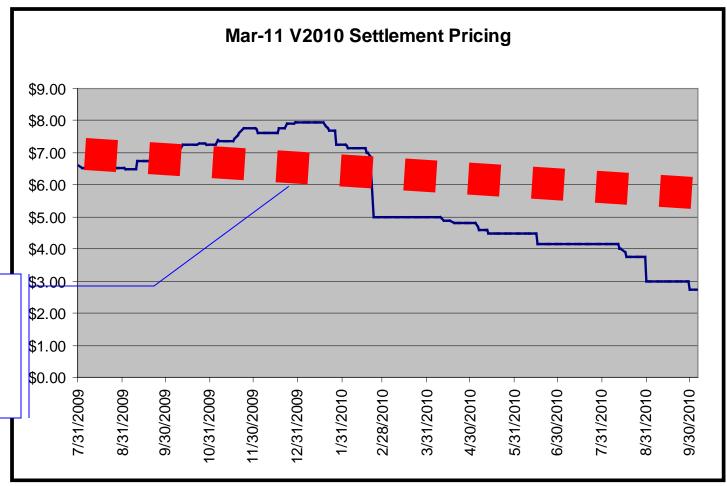
Pricing in CAR Markets





Pricing in CAR Markets Continued

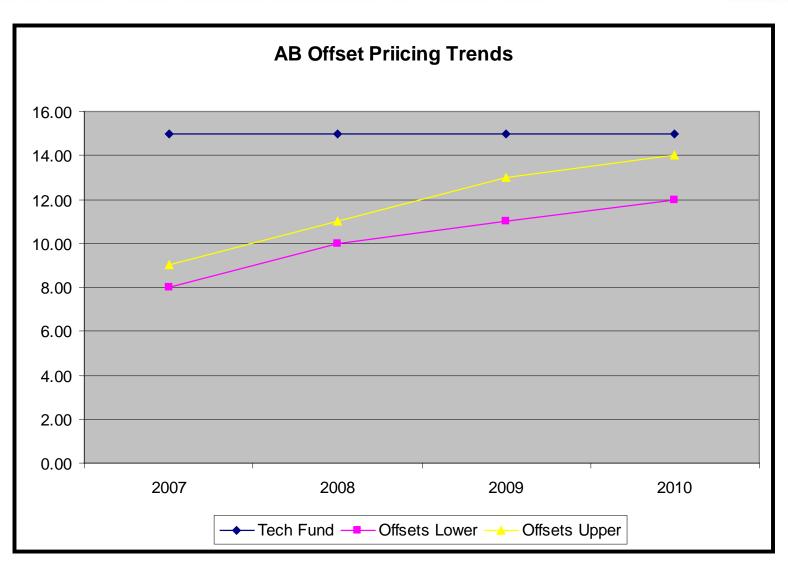




Pricing for forestry offsets has operated in a tighter band and has not been as volatile as other project types

Pricing in Alberta







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Creating Desirable Forest Offsets



Price

Reflect the realities of supply and demand, as well as inherent risks from regulation, technology etc

Protocol

Preference toward an established protocol and standard – VCS, CAR, ISO, AB, WCI, CDM etc

Flexibility

For pre-compliance and regional systems there needs to be flexibility to adapt for federal compliance

Project Type

Improved forest management, avoided conversion, afforestation

Counter-Party

Credit worthy counter-parties simplifies process but able to work with a range of counter parties

Volume

Minimum annual volume of 50k/t/year but preference given to larger project sizes – cost efficiencies

Creating a Forest Carbon Credit



Concept ual

Planning

Imple ment-ation

Late-Stage

Requirements include:

- •Initial project concept/feasibility assessment
- •Project due diligence
- •Protocol scoping or new protocol development



Requirements include:

- •Risk analysis
- •Technical advisory
- Project design document development
- Project validation
- Project registration



Requirements include:

- •GHG assertion
- •Project monitoring reports
- •Project due diligence
- Auditing



Requirements include:

- •Credit issuance
- •Credit transfer or submission for compliance

Capable of engaging across to the project development spectrum

Policy Challenges



Ownership

- Clearly remains a fundamental issue
- Largely preventing the broad development of the forestry offsets in Canada
- Limited number of projects on private lands
- In the US this is less of an issue as large tracts of forested land are privately owned
- Need clear, consistent and uniform application of ownership – not case by case

Regulatory Challenges



Permanence

Liability Period

- Project type much less attractive if temporary credits issued (e.g. CDM protocols)
- Large buffer pools reduce the economics of projects
- Need to find a balance to allow for conservative baselines while remaining economically viable
- Unlike many other project types the offsets could disappear (i.e. fire, disease, pestilence etc)
- Longer liability periods decrease the attractiveness of forestry projects
- Again there is a need to find a balance between conservativeness, economic viability and environmental integrity



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Moving Forestry Offsets Forward



Bridging the gap

Capital Power Corp

- Internal emissions reduction obligations
- Regulatory and market expertise
- Policy engagement and lobby
- Project design and implementation track record
- Long-term liability obligation

Forest Industry

- Internal emissions reduction obligations
- Forest management expertise
- Lease ownership
- Quantification and measurement expertise
- Ability to create a long-term asset stream

Given aligned interests and complementary expertise there is a significant opportunity to create partnerships between industry and the forestry sector



Q&A

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