Update on “Forestry” Protocols

Introduction

• Two active protocols that touch forestry – forest management:
  – Afforestation protocol
  – Direct reduction in emissions arising from a change in harvest practice protocol – aka. The In-block chipping protocol
Introduction

• Improved forest management protocol
  – Not actively pursued in 2010
• Strategic overview of forest carbon
  – Full life cycle thinking
  – Trade implications
Afforestation Protocol

• Part of the original suite of protocols
  – Derived from a protocol developed for a planned national registry
  – Utilized a number of “black boxes” derived from the Carbon Budget Model for quantification
  – No offsets were ever quantified under this protocol
Afforestation Protocol

• Protocol had a few flaws:
  – Did not discount carbon storage when trees were harvested:
    • Some protocols discount using a storage in Harvested Wood Products
    • International Panel on Climate Change extinguishes all carbon storage at harvest
Afforestation Protocol

• Protocol had a few flaws:
  – Quantification guidance did not work
  • Equations would not give a result due to structural errors
Afforestation Protocol

• Flaws were the reason for withdrawing the protocol for review and revision.
• Times have changed leading to far more detailed revision, including:
  – Explication of expansion factors
  – Detailed examination of carbon storage in harvested wood products
  – Examination of conservation forests
Direct Reduction Protocol

• Supported by Daishowa Marubeni International (DMI)

• Focuses on quantifying changes in emission profile associated with changes in harvesting practice
  – Specifically in-block chipping
Direct Reduction Protocol

- Protocol development system has been evolving toward greater rigor and conservatism
- Has some ability to adapt to other changes in harvesting practice
- Moving toward final approval stages
Improved Forest Management Protocol

• Supported by ANC Timber Ltd., AFGO, CANFOR, MDFP

• Secured an Alberta Innovation Grant to pursue specific aspects, in particular strategic engagement of Alberta’s forest industry with the “carbon economy.”
Improved Forest Management Protocol

• Strong parallels with the Afforestation Protocol:
  – Storage in harvested wood products
  – Quantification
  – Leakage
Improved Forest Management Protocol

• Some differences from the Afforestation Protocol:
  – Additionality
  – Ownership
    • ASRD interpretation that ownership of carbon resides with Alberta until the tree is severed
  – Baseline setting
Improved Forest Management Protocol

• Growing awareness that Alberta’s forest industry needs an overarching carbon strategy
  – Depending on how baselines are set making old forests young can turn into a carbon deficit pretty easily
  – Copenhagen suggests potential for using tariffs to ensure compliance in export markets
  – US and Europe are better positioned than Canada
Forest Carbon Strategy

• Driven by awareness of the ambiguous nature of determining carbon balance of old, boreal forests
  – Carbon stocks are likely to be radically reduced by harvest
  – Reforestation increases capture rate
  – What is the balance especially when we consider dead organic matter
Forest Carbon Strategy

• Pilot project examining three approaches to managing forest carbon:
  – Stock change
  – Baseline
  – Baseline with carbon management
  – Seeking active engagement with Alberta Sustainable Resource Development and Alberta Environment
Forest Carbon Strategy

• Pilot project examining three approaches to managing forest carbon:
  – Single forest management unit
  – Integrated coniferous – deciduous harvest
  – Address landscape scale carbon balance:
    • Standing stock
    • Dead organic pools
    • Peatland
Conclusions

• Direct reduction protocol is nearing completion
• Afforestation protocol has identified some very real challenges missed in initial protocol development
• Afforestation protocol has developed some quantification tools of considerable value to the improved forest management protocol
Conclusions

• Dawning awareness that management for forest carbon presents challenges and risk as well as opportunity
  – Need to better understand total carbon balance
  – Challenges in the trade arena
  – Recognize and build forward from the great accomplishments on the forest products processing side