Adding Value to Forest Management through GHG Emission Offsets

A Three Dimensional Viewpoint
Introduction

• Canada’s forest economy is under siege
• Forest industry is eagerly seeking new products and opportunities
Introduction

• The Carbon Economy seems to present such an opportunity
• Forest industry/regulators need to better understand the carbon economy
• Offering a few insights into that understanding
Industry Under Siege

Lumber Prices
Since 1973
Industry Under Siege

Historical exchange rates - monthly average noon spot rate

$SCAD$USD
4 September 2007 - 29 January 2008

2010.05.05  MMM
Industry Under Siege

Eucalyptus globulus plantation, 7 years old.

35 m³/ha/yr

Hybrid poplar plantation, 6 years old.

8 m³/ha/yr

Mixedwood reforestation, 10 years old.

3.5 m³/ha/yr

2010.05.05 MMM
What Strategic Advantages Do We Have?

• Scale
  • Canada has the third largest forest landbase in the world after Russia and Brazil
What Strategic Advantages Do We Have?

- Expertise – we have world class skill sets in:
  - Reforestation
  - Forest inventory
  - Forest growth projection
  - Forest management planning

2010.05.05  MMM
A World of Opportunity – GHG Emission Reduction

- Technical Reduction
  - Direct reduction
  - Avoided emission
- GHG capture and storage
  - Offsets
  - Where all the BUZZ is
A World of Opportunity – GHG Emission Reduction

• Offsets
  • A financial instrument representing:
    • A change in behavior
    • A change in carbon storage associated with specific portion of a landscape
A World of Opportunity – GHG Emission Reduction

• Offsets are an opportunity to integrate forest management practice and the carbon economy
Integration

Is there a real change in behavior?

Is the process transparent?

Growth and Yield Projection

Is the process repeatable?

Forest Inventory

Are estimates conservative?

Reforestation

Does the project result in a shifting of emissions?
Integration

• There has been an expectation of the carbon economy offering the forest industry a chance for home runs; driven by:
  • Inflated expectations.
  • Lack of understanding of the carbon landscape.
Integration

- Inflated offset numbers tend to deflate offset values.
Integration

- Realistic offset numbers result in more stable prices.

Figure 2: Quantity of Bids Submitted by Entity
By Type of Entity and Quantity Bid

<table>
<thead>
<tr>
<th>Number of Bidders:</th>
<th>2010</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Entity Share of Bids:</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>Ratio of Bids to Supply:</td>
<td>2.3</td>
<td>0.98</td>
</tr>
<tr>
<td>HHI of Bid Concentration:</td>
<td>710</td>
<td>2099</td>
</tr>
</tbody>
</table>

Most recent RGGI offset auction results
Conclusions

• Is there an opportunity for Canadian forest industry participation in the GHG offset world?
Conclusions

• YES!!
• Focus on:
  • Real attainment
  • Value of product
  • Understanding the intent and rules that underpin the GHG offset system.
Conclusions

• Critical factors in entering the carbon world:
  • Understand our limitations
    • SLOW growth rates
    • Little room for incrementality
Conclusions

• Critical factors in entering the carbon world:
  • Recognize our strengths
    • Scale
    • Skill sets
Conclusions

• Critical factors in entering the carbon world:
  • Understand and appreciate the structure of the carbon world