

CO₂ Trading Exercise

Carbon Sequestration Leadership
Forum

Tuesday, 15 April 2008.

Exercise guidelines

- Instructions and a simple economic model will be provided for your use. Bring a laptop if you have one!
- Each sub-team (Government and Contractor) will be given a data set to work with during the first segment of the exercise. Sub-teams will have the spreadsheet for the other sub-team but not all the input data.

Exercise guidelines

- Up to 50 minutes to work as sub-teams on project development.
- Both sub-teams have the option of a wildcard.
- After 50 minutes the sub-teams negotiate with each other.

CO2 Exercise Spreadsheet - Govt				<i>Input Cells are in Green</i>			
				<i>Value of storage net of alternative (purchase credits)</i>			
Base Year	2010			<u>Economic Results</u>			
Term (yrs)	20			Government			
Royalty Rate	10%			IRR	N/A		
Cost Recovery Limit	60%			NPV @0%	3,033.05	\$MM	
Contractor Profit Split	50%			NPV @5%	1,882.29	\$MM	
Tax Rate	35%			NPV @10%	1,279.55	\$MM	
				NPV @15%	937.55	\$MM	
				NPV @20%	728.93	\$MM	
Abatement Volume (Mtpa)	4.00						
Price for Foreign Carbon Credits (\$/Tonne)	\$ 55.00						
Negotiated Carbon Storage Toll (\$/Tonne)	\$ 48.00						
\$Million			Total	2010	2011	2012	2013
Abatement Volume (Mtpa)			80.00	4.00	4.00	4.00	4.00
Negotiated Carbon Storage Toll (\$/Tonne)				48.00	48.00	48.00	48.00
PROFIT SHARING CALCULATIONS				2010	2011	2012	2013
Gross Revenues			3,840.00	192.00	192.00	192.00	192.00
Royalties			384.00	19.20	19.20	19.20	19.20
Cost Recovery			750.00	120.00	120.00	120.00	120.00
Remaining Profit			2,706.00	52.80	52.80	52.80	52.80
Contractor Share of Profit			1,353.00	26.40	26.40	26.40	26.40
Government Share of Profit			1,353.00	OK 26.40	26.40	26.40	26.40
GOVERNMENT CASHFLOW CALCULATIONS				2010	2011	2012	2013

Values

- Price for foreign carbon credits are usually in the range \$35 to \$65.
- Facilities often cost \$400m to \$550m.
- Delineation wells cost \$30m.

Report Back

- What was the decision? Develop the Soda Water field or buy carbon credits?
- What were the key issues and drivers?
- Any key assumptions that you made?
- What are the terms that were reached?
- Other ideas, issues or learning that the team wants to discuss.

Acknowledgements

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- This version of the exercise was jointly developed by Lincoln Paterson, Mike Congreve and Wade Bard.