



## **CSLF Financing Roundtable** **Commercial and Financial Structuring of Commercial Scale Projects with CCS**

**London, United Kingdom**

**27 January 2010**

### **EXECUTIVE SUMMARY**

*Roundtable Objective: to engage the investor community in a dialog on the critical policies and incentives needed to finance and build the initial wave of energy or industrial plants with CCS in the EU and North America, leading to recommendations for consideration by G8 deliberations with global impact. The roundtable will highlight additional risks (e.g., liability for CCS leakage, capital recovery.) Several CSLF countries are evaluating or moving ahead on projects with CCS. The first Roundtable in London provided an “expert framework” for a wider dialog with industry, investors, and policy-makers.*

### **SUMMARY OBSERVATIONS**

The first CSLF Financing Roundtable in London assembled a range of critical perspectives for building a “business case” commercial scale energy and power projects with CCS, with these observations:

- Reaching the 450 ppm goal worldwide cannot be achieved without CCS, given current and expected use of fossil resources. The other low-carbon sources (nuclear, renewables) each have their limitations and will struggle to meet growing global demand, let alone offset fossil use.
- Current projects slated with CCS would only sequester about 140 Mt a year, and the goal is 10,000 Mt. Hence, substantial investment is required.
- No single country or company can take on the risk burdens for this scale of investment at this early stage. And, pricing the “public good” of CCS is too difficult for any single project.
- CCS is not economic now and may not be in the near term, given low gas prices. Government mechanisms, not just subsidies, but risk-sharing, are essential for “early mover” progress.
- In making the transition to commercial scale (>1 million tons CO<sub>2</sub> per year), there are no “CCS projects” only energy or industrial “projects with CCS”, because the project must generate revenues with a financial return rather than just experimental results. And,

because the project will be financed with debt, a rigorous credit review, looking to repayment, determines the financial structure and terms.

- Government loans and loan guarantees can help provide the credit support needed for a wave of first commercial-scale projects with CCS, but those instruments do not address regulatory issues.
- CCS is not one risk. These are large scale power and industrial projects with complex system interactions that compound the risks.
- Public support (or recognition of the benefits) is vital for characterization of sites and for financing projects. Energy and power projects with CCS utilize domestic resources and modernize the fleet.
- Leading governments within CSLF are at the table negotiating with industry on the critical elements needed to move forward on commercial-scale projects with CCS.
- Yet, CCS must be applied beyond the power sector to energy-intensive industry (steel, cement, metals) to meet emission goals and engage investors. There is a shared learning for investors across sectors by building at full scale.
- Industrial and power projects with CCS carry substantial implications for regional development and economic opportunity to address public recognition of the associated benefits and risks.
- Applying CCS to other sectors can provide valuable learning for scale up of CCS in the power sector, including experience with injection and stewardship.
- Some equity investors, not the majority, are willing to negotiate with government on first projects because they value progress on emission goals, and using coal must be addressed.
- Long-term liability (for CCS injection and leakage) is not a risk the private sector can price or absorb, and this issue must be addressed with clear regulations *before* financing is arranged, not after construction.