Designing, promoting and maintaining CMM projects while the carbon market reboots

A panel discussion
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Sustainable Resources
Contents

• A review of global carbon markets and factors which will affect the dynamics
• The status of CMM & VAM in China
• New financing methods
• New market mechanisms for achieving future scale and net emission reductions
Global carbon markets

❖ For the past 10 years, CDM has dominated global carbon markets
  ○ Emission reduction projects in developing nations selling carbon securities to developed country polluters
  ○ >7,000 projects registered; 1.5 billion tonnes CO₂ abated; >$356bn of clean energy investments
  ○ >300 CDM methane projects issued CERs and some 1,200 initiated but not implemented

❖ CDM offset prices have fallen from more than 20USD/t CO₂ to close to zero

❖ National and regional emissions trading are taking off all over the world
  ○ Mature schemes in EU, North East & Mid-Atlantic States (RGGI) and New Zealand
  ○ Initiatives started in California; Quebec; 7 provinces in China; South Korea; Australia; Ukraine
  ○ Other countries proposing national ETS schemes include China, Brazil, Chile
  ○ Offsets key to maintaining reasonable prices to industry

Projected total market growth is exponential to US$550 billion by 2020
Emissions trading is here to stay

The CER market is currently dislocated

- Thousands of stand-alone projects across more than 100 countries, almost none of them currently producing offsets because of low prices
  - Cost to issue 1 offset (Euro 0.50 to 1.00) > spot price (Euro 0.50)

- Many projects that were in early development have been stopped or are on hold

- 30% of total CERs come from projects that have offsets which are no longer admitted to the EU ETS, their largest market through 2012

- Some CDM projects are switching to other standards and markets
  - Voluntary market including retail and voluntary ETS
  - Gold Standard
  - Others

- Offsets supply appears to be >200% of demand
Market dynamics could change due to possible developments

1. Demand from nascent carbon markets in China – 7 pilots (Chinese VERs), national scheme from 2015 (2020?); offsets from China CMM/VAM projects potentially allowable; CDM projects (not issuing) can switch
2. A change in India’s approach to climate change negotiations
3. An increase in the EU ambition to 30% (2020) or 40% (2030)
4. A push by the US to ensure the market plays a key role in international climate change negotiations
5. Demand for offsets from the aviation and shipping industries
6. A stabilization fund launched by multilaterals such as the World Bank, the IMF and / or the Green Climate Fund
7. A focus by the UNFCCC on investing in instruments they already have, i.e. the Clean Development Mechanism
China CMM & VAM

- 70-80% of gas released by mining is emitted as VAM
- Total of 522MT CO2 equivalent released each year – 418Mt VAM, 104Mt captured CMM (half used)
- If ALL mitigated represents about 7.5% of the CO2 produced by coal combustion
- 82 CMM & VAM projects registered under the CDM
- 3 SSR CMM co-generation projects continuing – power (c27MW), heat and flaring, 1m ERS/year; additional project phases to be financed locally
- Interest in technology for improving borehole sealing and maintaining gas quality from coal companies – need for continued technology transfer
- VAM projects have stalled but still some interest in VAM heat or power by mining groups – number of projects likely to be low
- China government incentives for clean power generation could be increased
- New CMM projects likely but cost saving could compromise efficiency and standards; no barrier to use of low concentration methane; no incentive for flaring on new projects so more gas will be vented
New Financing Methods: RBF – results-based financing

World Bank: pay-for-performance auction facility for methane

- Use existing tools and standards to quantify
- “Put option” contracts (bankable?)
- CMM & VAM mitigation identified as one of 7 key targets
- Could help to kick start stalled CDM CMM & VAM projects
- Increases price certainty to the private developer (in exchange for increased development and delivery risks)
New Market Mechanisms

- Bilateral offset credits – project based, no major institutional structures required
- Sectoral crediting – credits awarded if emissions from a sector are kept below a predefined level
- Sectoral trading - allowances issued ex ante based on a sectoral target with penalty for not achieving
- NAMA/policy crediting (Nationally Appropriate Mitigation Action)
- Net avoided emissions – credits for not exploiting fossil fuels

NMM:
- Allow governments to incentivise emission reduction (not allowed under CDM)
- Avoid additionality complexity
- Invoke policies appropriate to sector eg., feed-in tariff and green credit lines for energy production; carbon tax for industrial energy use
- Baseline could be more stringent than the BAU with no carbon credits between BAU and baseline; carbon credit financing below so achieves global emission reductions
Conclusions and discussion topics

- Carbon markets will recover but the timing is uncertain
- To achieve significant anthropogenic methane emission reductions CMM flaring (of unused gas) and VAM mitigation are essential
- CMM recovery, utilisation and mitigation needs a sectoral approach to achieve scale at national levels
- The World Bank pay-for-performance facility for methane mitigation could help to resurrect stalled CDM CMM & VAM projects and could have a longer term role in project and NAMA financing
- New Market Mechanisms could be helpful in the longer term if they achieve international support
- Globally, many coal mining companies are not engaging in the sustainability debate and need to be brought on board
- AHGE could provide guidance on policies to incentivise CMM/VAM utilisation and mitigation