

The Future of Carbon Market

A Carbon Trading Perspective

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Carbon trading became a reality because of the Kyoto Protocol after the world realized the importance of low carbon based economy and the need to curtail the green house gas emissions. The world carbon markets have grown almost exponentially till 2009 to reach US\$ 143.7 billion.

After 2009, the Carbon Market became a victim of the global financial crisis followed by the unwillingness of nations to commit to future emission caps. The monetary value of the global carbon market stagnated at US\$143.7 billion in 2009 and US\$141.9 billion in 2010.

The largest segment of the Carbon Market is the European Union

Allowance (EUA) which is the EU's primary tool to set emission limits for industry. The second largest segment of the carbon market is the Certified Emission Reductions (CERs) market. CERs are the largest carbon offset or carbon credit mechanism currently in place, administered by the Clean Development Mechanism (CDM) Executive Board under UNFCCC. The secondary market for CERs was in excess of US\$267 billion in 2010.

Status check on the current market

The Market had little in terms of good news in the last year. No major success from the negotiations in Copenhagen and Cancun, apart from a symbolic agreement. Developed nations are looking towards leading emitters from developing nations (primarily China

and India) to commit to emission reduction targets. Large emitting developing nations have accepted voluntary (GDP based) emission intensity reduction targets; but are against any absolute emission reduction targets as they argue that their per capita emissions are not comparable to developed nations. All in all, there seems to be very low possibility of a global deal, which will result in an international carbon market.

Clearly carbon markets have shown a path by which technology transfer from developed nations to developing nations will be accelerated. Global leaders at Copenhagen and Cancun have supported the need for funding clean technology adoption in developing nations.



The events in Japan have exposed the dangers of nuclear power generation which resulted in Germany revisiting its plans to extend the life of its nuclear power plants. However, all this has been overshadowed by the events in Greece and therefore the EU's ability to push for an aggressive path toward emission reduction will be lower.

NAMAs and Bilateral Markets – Key ingredients in the future?

The carbon market is likely to shift to the domain of bi-lateral and multi-lateral frameworks, based on the differing views of leading countries at Cancun.

A number of new jargons have gained popularity post the Cancun meeting, NAMAs or Nationally Appropriate Mitigation Actions. NAMAs are a set of voluntary policies and actions individual countries undertake as part of their commitment to reduce greenhouse gas emissions. These are long term sustainable development measures such as energy efficiency, afforestation, industrial process efficiency, development of green fuels, etc. NAMAs can be funded by developed countries (supported NAMAs), or by the developing country itself (unilateral NAMAs) or be supported by the carbon markets (credited NAMAs).

Bilateral carbon offset projects have also started to show traction. Earlier in the year Japan opened an application phase for projects under its bilateral mechanism with priority given to waste, wastewater, biomass, agriculture, forestry and transport related projects. In another move, the Federation of Electric Power Companies (FEPC) of Japan, one of the largest buyers of credits, has expressed dissatisfaction with CDM procedures and timelines.

The FEPC has suggested bilateral offset mechanisms and is conducting feasibility studies with ultra super-critical coal-fired power generation projects to establish the framework for bilateral offset mechanisms.

Domestic Mechanisms -The new Carbon Market

While the UNFCCC is working overtime to publicize the benefits of the CDM mechanism, there seem to be little

in terms of new support for the mechanism. Both, China and India have taken steps to start domestic schemes aimed directly or indirectly at emission reduction. A number of environmental commodities are being launched in India including Renewable Energy Certificates and Energy Efficiency Certificates.

India launched the Renewable Energy Certificate Mechanism in late 2010. The mechanism allows renewable based power projects to be accredited and registered for receiving Renewable Energy Certificates (RECs) which are then tradable through Power Exchanges.

Most states have announced Renewable Purchase Obligation (RPO) targets which is the percentage of renewable based power which is to be supplied to the grid. The obligated entities within the states (power distribution companies -DISCOMs and large end-consumers) can cover any shortfall in achieving their RPO target, by purchasing RECs from RE generators.

One REC is equivalent to 1 MWh of renewable energy injected into the grid. Trading activity in the market has picked up over the last few months and over 87 projects have been accredited as of June 2011.

Over the last year, the Bureau of Energy Efficiency (BEE) in India has started engaging with industry to draw the framework for a domestic energy efficiency market. Large industrial establishments consuming energy greater than a threshold have been identified and brought under the purview of the Energy Conservation Act.

Industrial establishments in energy intensive sectors like thermal power plants, iron & steel, cement, fertilizer, aluminum, textile, pulp & paper and chlor-alkali have already started reporting and auditing their energy consumption.

During the next few months the framework will be rolled-out which will govern the first phase of the energy efficiency market from April 2011 to March 2014.

The Ministry of Environment and Forest (MoEF) launched a national technical consultation of the proposed SO_x, NO_x emissions trading mechanism in March 2011.

The scheme is based on the successful SO_x emissions trading scheme in the United States. Pilot projects are scheduled to be launched in Gujarat and Tamil Nadu in late 2011. These states have significant industrial clusters which include power plants and oil refineries.

Summary

Often heard saying "May you live in interesting times" is almost a curse of the carbon market. We are in the midst of significant activity on the domestic and international front.

While CDM is still active and the hunt to get projects registered before December 2012 is top priority, clarity on future markets and their impact on financing clean technology adoption is key. The domestic mechanisms (REC, PAT, SO_x & NO_x) would help the industrial sector get acquainted with cap and trade mechanism, which would prove helpful to launch a carbon cap & trade mechanism, in the future.



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