



Dear Readers,

It has been our endeavor to create awareness among our readers towards sustainable growth and cleaner environment by taking up relevant topics for discussion. In this issue we underline the importance of energy conservation and energy efficiency in sustainable growth. Energy conservation and energy efficiency are two different techniques to save energy and achieve common objective of reducing green house gas (GHG) emission and support sustainable economic growth. The energy conservation can be achieved through certain change in activities which can result into less use of energy consumption. The energy efficiency could be achieved by adopting modern technology or more efficient equipment for providing continuous service without reduction in existing level of activities to save energy. Since economic growth is positively correlated with energy consumption and thereby the efficient use of energy attains greater significance for sustainable growth. It is said that saving one unit of energy is almost equal to reduction in demand of new capacity generation by two to two and half times besides reducing fossil fuel consumption. Further, production of new power is not only cost intensive option with long gestation period whereas energy saving options is comparatively cost effective alternatives within a shorter period of time. It is, therefore, important to adopt a balanced approach while investing in increasing supply and managing demand of power by efficient conservation and optimum use of available energy sources. There is a vast scope for small and medium sector units to go for energy conservation and energy efficiency tools which would help them achieve improvement in profitability within shorter payback period. Various market oriented schemes like Perform, Achieve and Trade (PAT), Market Transformation for Energy Efficiency (MTEE), Energy Efficiency Financing Platform (EEFP) etc. have been launched under National Mission for Enhanced Energy Efficiency (NMEEE), to encourage energy efficiency in India. As energy intensity per unit of GDP is still higher in India as compared to the developed world, it is

necessary to adopt energy conservation and energy efficiency approach as a national mission in every field which leads to optimum utilization of energy for productive purposes besides saving all resources and saving carbon foot prints.

In this issue we present our readers the following:

1. Carbon and REC Market Developments in India
2. International Carbon Market Developments
3. CER /ECX Market - Price Trends
4. CDM Statistics as on July 31, 2013
5. Carbon Credits / CDM Services by IDBI Bank
6. India Chiller Energy Efficiency Project (ICEEP)

1. Carbon and REC Market Developments in India

- During July 31, 2013, 43 new CDM projects from India were registered with UNFCCC. With this, India has cumulatively registered 1342 CDM projects with UNFCCC as on July 31, 2013. During the month 0.8 million CERs were issued to Indian CDM Projects. Indian CDM projects have cumulatively received 182.55 million CERs as at the end of July 31, 2013.
- Renewable Energy Certificates (RECs) represent the attributes of electricity generated from renewable energy sources. One REC represents that 1MWh of energy is generated from renewable sources and injected in the national grid. RECs are used by the obligated entities to comply with regulatory requirements viz. Renewable Purchase Obligations. The RECs are actively traded both on Indian Energy Exchange (IEX) and Power Exchange of India Ltd (PXIL). The fourth REC trading session of FY 2013-14 was concluded on July 31, 2013. Due to oversupply, both Solar and Non-Solar RECs were sold at respective floor prices of Rs 9300 and Rs.1500 each at both IEX & PXIL (same market prices as discovered during the last trading session in June 2013). The aggregate transaction value at both exchanges was over Rs. 26.1 crore as compared to Rs.12.25 crore settled during the June 2013 session.

The summary of RECs traded during the July trading session at is given below:

Particulars	IEX		PXIL	
	Non Solar RECs	Solar RECs	Non Solar RECs	Solar RECs
Sell Bids (Nos.)	1686175	12486	1095323	9194
Buy Bids (Nos)	72321	1983	89081	46
Price discovered (Rs.)	1500	9300	1500	9300
Volume Cleared (Nos.)	72321	1983	89081	46

2. International Carbon Market Developments:

- The CDM Executive Board has achieved mile stone of crossing 7000 CDM projects under the Kyoto Protocol. The 7,000th CDM cleared by CDM EB is located in Cebu, Philippines. The project would capture and destroy biogas created at two livestock (pig and chicken) farms reducing annual emissions by 48,000 tonnes; the equivalent of removing 10,000 passenger cars from the road each year. The project is expected to reduce air pollution and odour, reduce instances of mosquito-borne illnesses, such as dengue fever, and increase job opportunities for the local community.
- CDM Executive Board in its 2013-2014 management plan has decided for setting up the regional collaboration centres (RCCs) to provide on-the-ground support to project participants, national authorities and agencies engaged in the mechanism. The first two RCCs have been made operational in Lomé, Togo (in partnership with the West African Development Bank) and Kampala, Uganda (in partnership with the East African Development Bank,). A third RCC has just been launched in St. George's, Grenada, in partnership with the Windward Islands Research and Education Foundation. Fourth RCC is due to launch shortly in partnership with Corporación Andina de Fomento in Bogotá, Colombia, and the fifth RCC is proposed for Asia later in the year. Findings from these RCCs indicated that there are plenty of project ideas looking for backers and numerous agencies eager to leverage the CDM to reduce greenhouse gas emissions and encourage sustainable development. Considering the fact that currently the CER prices on the secondary market having declined more than 80 percent in the past year, to around 55 Euro cents, it is necessary to encourage CDM projects. The approach of RCC is cost effective in promoting CDM in the underserved regions. The RCCs are also catalyzing partnerships with local, regional and international institutions.

3. Certified Emission Reduction (CER) market – Price Trends

European Carbon Market -Spot CER market

During the month spot CERs were traded at around Euro 0.45 on ICE. The future CERs for Dec. 2013 and Dec.2014 were traded at around Euro 0.50 per contract.

Price trend for future ECX CER Contracts -Dec. 2013, Dec. 2014 and Dec. 2015

ECX CER Contracts	July 2013			June 2013		
	Lowest (€)	Highest (€)	Volatility (%)	Lowest (€)	Highest (€)	Volatility (%)
Dec 2013	0.49	0.57	16.33	0.40	0.50	25
Dec 2014	0.51	0.59	15.69	0.43	0.52	20.93
Dec 2015	0.60	0.67	11.67	0.50	0.60	20

During July 2013, ECX CER Dec. 2013 future contract was traded at its lowest price of €0.49 on July 18, 2013. The contract was traded at highest price of €0.51 on July 22, 2013. The highest and the lowest closing prices of ECX CER Dec. 2013 futures reflected slightly lower volatility compared to last month.

4. Clean Development Mechanism (CDM) Statistics (As on July 31, 2013)

Total no. of projects registered with UNFCCC	7128
No. of Projects requesting registration	89
Total No. of CERs issued	1365.58 Mn
Total No. of Registered projects from India	1342
Total No. of Registered projects from China	3681
Total No. CERs issued to Indian Projects	182.55Mn

- China leads with 3681 registered CDM projects followed by India 1342 projects and Brazil 300 projects respectively. Indian CDM projects have been cumulatively issued 182.55 mn (13.36%) CERs out of the total 1365.58 mn. CERs issued to all registered CDM projects at the end of June 2013.

5. Carbon Credits / CDM Services by IDBI Bank

IDBI Bank is the first among the public sector banks to have entered into carbon credit business. The Bank has undertaken the pioneering role in the Indian banking sector in the area of environment banking. Since early 1990s, IDBI has been instrumental in the phase out of Ozone Depleting Substances (ODS) and is involved in the national projects for phase out of production of Chloro-fluoro Carbons (CFCs) and production and consumption of Carbon Tetrachloride (CTC) as a Financial Intermediary of the World Bank. IDBI Bank is actively involved at national and international levels in various forums on climate change and is working with no. of national and multilateral agencies for sustainable carbon credit business. IDBI Bank is the forerunner in providing complete range of CDM related services tailor-made to suit the needs of the clients as under:

- A. Funding of the CDM projects;
- B. Facilitating registration of CDM projects under the UNFCCC for availing carbon credits, covering preparation of technical documents (PDDs), interacting with various agencies like MoEF, GOI, validating agencies (DoEs) etc.
- C. Advisory Services for Trading of Certified Emission Reductions (CERs)/ Voluntary Emission reductions (VERs) - Both buying and selling under different structures to

meet the requirements of clients and preparation of bankable Emission Reduction Purchase Agreements.

D. Upfront Financing against the Carbon Credits/Carbon Credits Receivables

E. Related Banking and financial advisory services for syndication (Debt/Equity) etc.

Advantage IDBI Bank

- Strong relationships with good quality buyers
- Ability to work out different price structures to meet the requirements of buyers and sellers while mitigating risks
- Possibility of funding against future sale can be explored
- Experience of analyzing documents including ERPA
- Long term partner for business growth
- One stop solution for all the banking and advisory needs of the clients
- Complete transparency in dealings.

6. India Chiller Energy Efficiency Project (ICEEP)

The Ministry of Environment & Forest (MoEF), GoI, in association with the World Bank has launched ICEEP for provision of financial grant incentives for accelerated replacement of energy inefficient Chloro Fluoro Carbon (CFC) based centrifugal chillers with energy efficient non-CFC based centrifugal/ screw chillers. The project had arranged grant funds from the Global Environment Facility (GEF), Multilateral Fund for Implementation of the Montreal Protocol (MLF) aggregating USD 7.30 million. IDBI Bank has been appointed as Project Implementing Entity (PIE). The project development objective is to promote deployment of energy efficient technologies to reduce GHG emissions under Kyoto Protocol and support GoI in compliance with the Montreal Protocol obligations for complete phase out of new CFCs in the production & consumption sectors through provision of incentives directly to chiller owners in order to lower their opportunity costs and upfront capital cost and demonstrate significant rate of return on investment of chiller replacement. For more details of ICEEP please contact us urgently

The project has so far identified more than 90 CFC chillers under the project. Grant incentive aggregating USD 0.42 million (Rs. 195.81 lakh) has been released to nine beneficiaries for replacement of 14 old CFC chillers by new energy efficient non CFC chillers. The project has generally achieved its primary objective of phase-out of CFC based chillers (eligible under project) in the country. The project has recently relaxed certain eligibility criteria for old CFC chillers for replacement under the project. Henceforth the chiller owners can avail subsidy for replacement of all existing

functionally operational CFC-based (R11 and R12) Centrifugal / Screw/ Reciprocating/ Scroll type chillers/system irrespective of age (date of installation) and capacity of chillers/ system by new energy efficient non-CFC chillers/System under the project. It has also been decided to provide financial incentives to Chiller Manufacturers and ESCOs who will enter into Memorandum of understanding with PIE for their active participation in the project.

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