

Last Session Caps Eventful Five Years For RE

Financial year ends on a quiet note

REC Trade March 2012		Buy Bids	Sell Bids	Volume Traded	Clearing Price Rs. per REC
Non-Solar	IEX	272,366	223,907	192,354	2,900
	PXIL	51,401	7,405	7,383	3,100
Solar	IEX	5,782	-	-	-
	PXIL	3,319	-	-	-

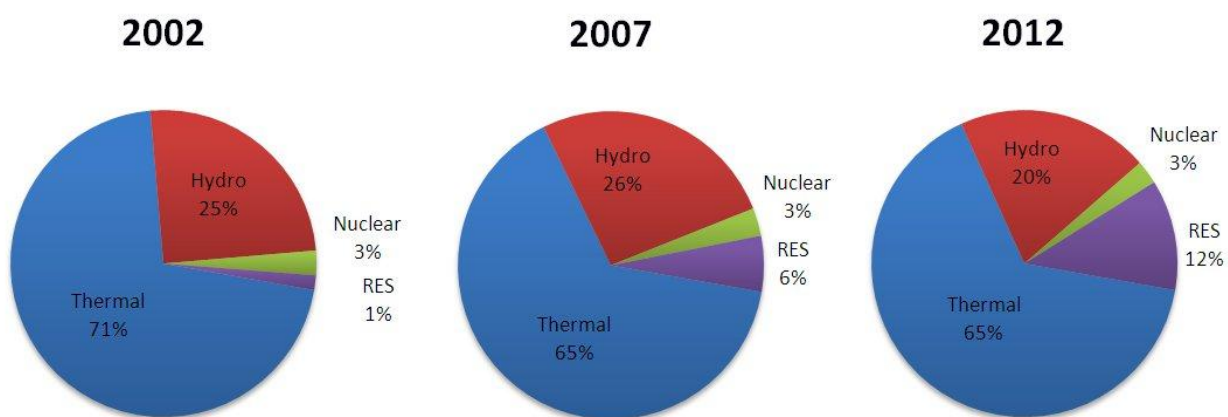
Renewable energy in numbers

As the financial year comes to a close, we take a look at how far the Renewable Energy sector in India has progressed and why the future for the REC market looks bright.

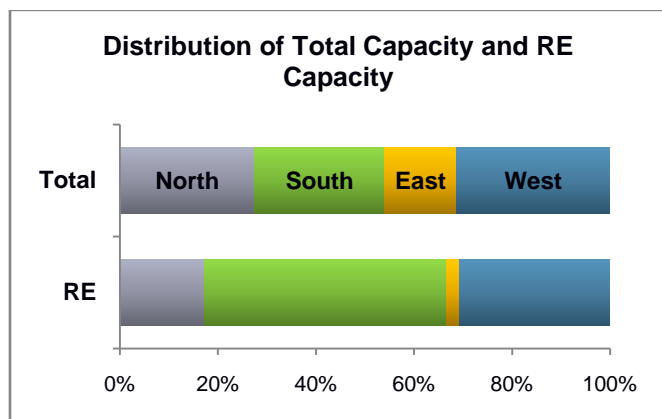
Capacity and Share of Renewable Energy in India have grown steadily. More RE capacity was installed in the last five years than the cumulative total till then.

5 Yr Plan Ending	1992	1997	2002	2007	2012
RES Installed Capacity MW	32	902	1,628	7,761	22,233
5 yr CAGR	NA	95%	13%	37%	23%

Increasing Share of RE in India's Power Mix



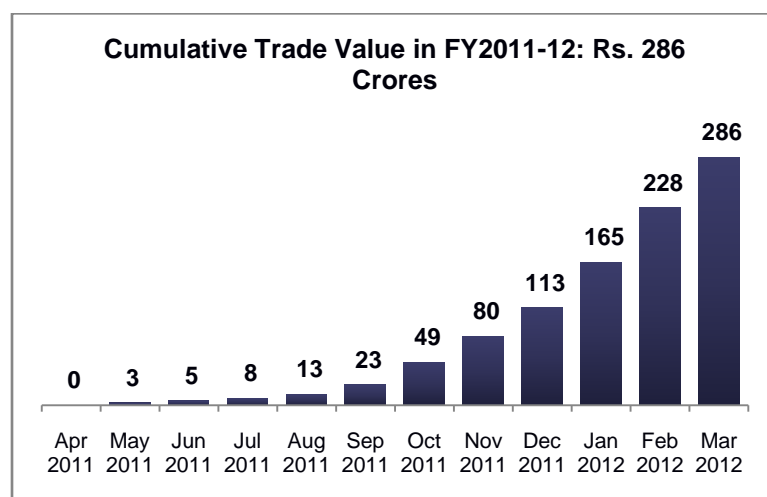
Source: CEA, MNRE; 2012 data as on 29.02.2012



Distribution of total installed power generating capacity and capacity of Renewable Energy is skewed amongst Regions. South accounts for 27% of total installed power generation capacity but 49% of installed RE capacity owing to wind energy capacity in Tamil Nadu.

Source: CEA, East includes North East, South includes Islands: 2012 data as on 29.02.2012

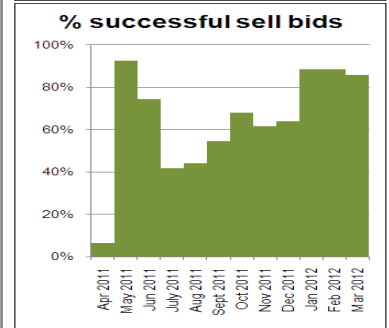
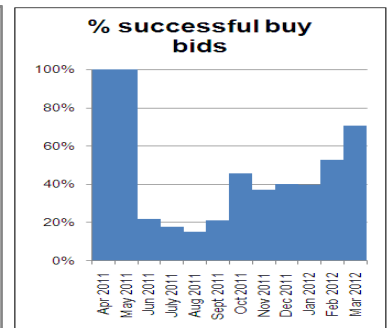
REC trading was launched in March 2011. It provides a market driven route for addressing skewed availability of RE. After a hesitant first few months, the market has now picked up and is substantial in size now – total traded value of RECs in FY2011-12 was Rs. 286 crores.



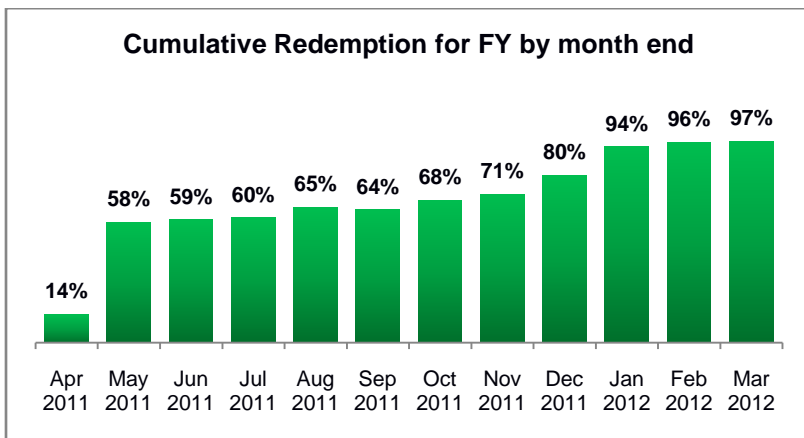
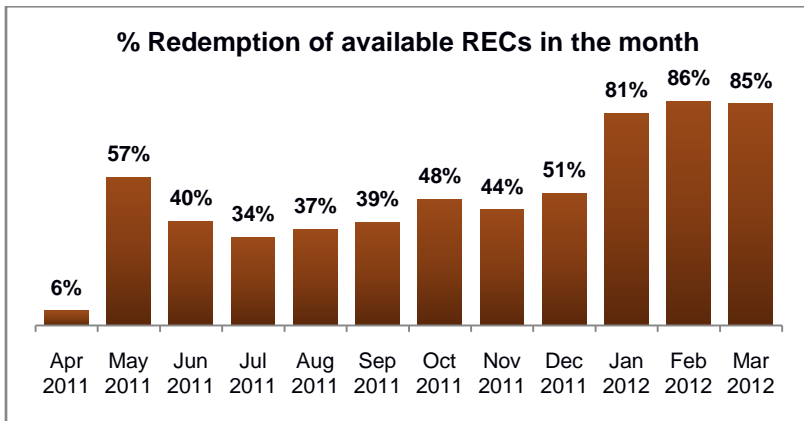
Source: REC Registry, Trade Numbers in '000 RECs

Participants are warming up to the REC market. Evidence of this can be seen in various aspects of market performance in the last twelve months.

- a. Higher prices of RECs – prices picked up from floor level of Rs. 1500 to Rs. 3000 by last quarter of FY 2011-12. There is more clarity now on what levels of pricing can be expected in the coming financial year.
- b. Increase in number of participants in trading – number of participants rose from mere double digits in first few months to around 400 in the last trading session. Higher number of participants encouraged better price discovery for RECs.
- c. More successful buy as well as sell bids – higher proportion of bids were cleared both from sellers as well as buyers. This shows better clarity on prices, which have been stable in the range of Rs 2,700 to Rs. 3100.



Source: REC Registry, IEX



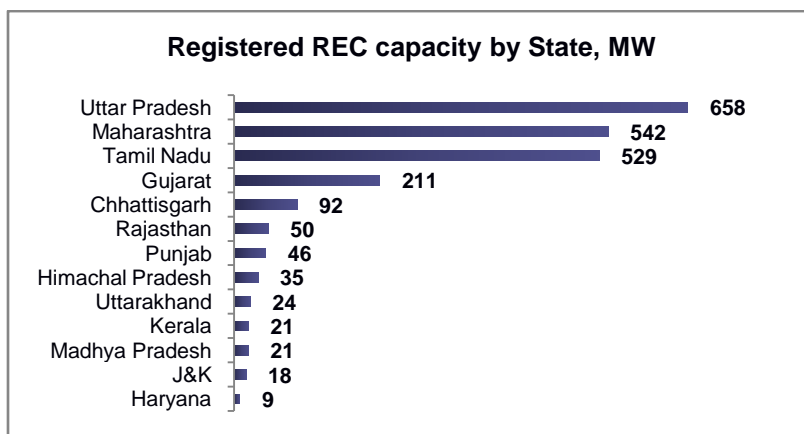
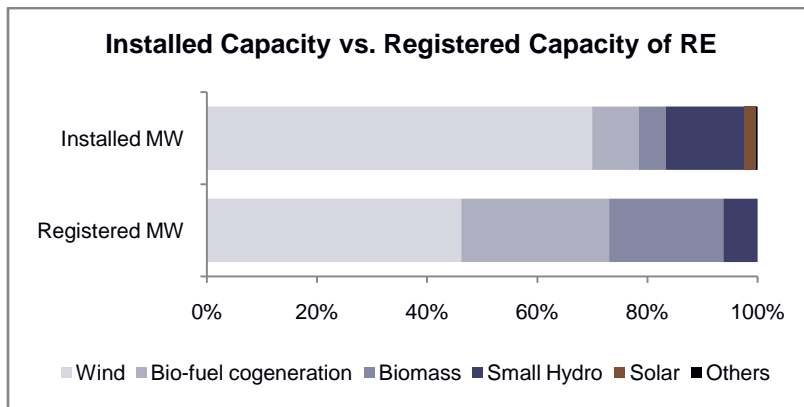
The REC market displays seasonal characteristics. Pattern of increase in price and redemption may change in coming financial year.

- a. Prices reached higher levels in last quarter – this could be partly attributed to compliance pressure from buyers’ side and to urgency of sellers to cash in on the energy generated within the financial year.
- b. More redemption in last quarter – driven by expectation of higher prices. Prices may increase in the first and second quarters in the coming FY with more buyers looking to comply with RPO early in the year to avoid last quarter rush. Redemption may become even faster if quarterly compliance is followed.

Source: REC Registry

Scope for REC market in India is wide – FY2011-12 was encouraging in many ways.

- a. Significant unutilized potential yet to come on line – installed RE capacity grew by 23% in FY2011-12. REC mechanism will further boost investment in wind energy while solar photovoltaic market is yet to start in earnest.
- b. Skew between installed capacity of RE and RE capacity registered for REC – Biomass and Cogen capacity has a comparatively bigger share in REC registrations compared to installed wind energy capacity.
- c. Participation from more States to boost market further – Uttar Pradesh, Maharashtra and Tamil Nadu alone account for three quarters of RE capacity registration (in MW). Gradual entry of other States and more participation from them will strengthen REC market further.



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Promoted by alumni of IIM Ahmedabad and IIM Bangalore, we at **agneya** work with Renewable Energy Generators to manage their REC accreditation, registration, issuances and trading. We also work with companies covered by the Renewable Purchase Obligation (RPO) on optimum ways to fulfill these obligations. **agneya** also provides services in the following areas –

Renewable Energy Project Management – advising clients on the best possible portfolio of renewable energy (wind, solar, bio) across tariff regimes, technology options, electricity sales structuring and availing incentives like REC and GBI.

Electricity Market Regulations – advising clients on regulatory aspects of electricity market, options for realizing the maximum value from their energy assets and minimizing costs related to regulatory compliance.

Carbon & Energy – measuring carbon footprint, energy audits and current/future energy profiling to assess risks and opportunities related to energy security and climate change.

Sustainability – building robust long term foundations for business i.e. managing economic, environmental and social aspects of business. These include water management, sustainability management and reporting.

For further information on Renewable Energy Certificates or other services, please contact us at –

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