

November 18, 2010

## REC Markets Launched Today!!!

### What Happens Next?

- In states where RPO regulations are final, the State Nodal Agency will kick-off the Accreditation Process and **start accepting applications**
- In states where the Nodal Agency has been notified, the Agency may start accepting applications for Accreditation even though the RPO regulation is not yet final



One of the most common questions we have been asked by most of our customers is the eligibility of a project for RECs when they are already availing of CDM benefit, and vice-versa – eligibility of CDM if REC benefit is availed.

The below section discuss this in detail. We also present an analysis of the relative benefits under CDM and REC mechanism. Based on our analysis, REC is a significantly more beneficial mechanism on every measure – monetary benefit, ease of access and cost/ time of access.

**Q: Is a project eligible for REC benefit if it is already availing of CDM benefit?**

A: The REC and CDM mechanisms are independent of each other. While the CDM mechanism focuses on Greenhouse Gas Abatement, the REC mechanism is focused of renewable energy generation.

Nowhere in its regulations the CERC has specified that availing of CDM benefit will disqualify a RE generator from accessing REC markets.

Further, the CERC has clarified that *“REC and CDM are different mechanisms”* (Statement of Objects and Reasons dated January 14, 2010).

**Q: Is the project eligible for CDM benefit if it also avails the REC benefit?**

A: As mentioned above, the REC and CDM mechanisms are independent of each other, and from the CERCs perspective, can co-exist. However, one of the fundamental aspects of eligibility for carbon credits in the “Additionality” criterion\*. If the additional benefit of RECs is considered (even at a minimum of Rs 1.5/unit), it is likely that several projects that meet the additionality criterion under CDM without REC, are likely to not meet the criterion in the future when REC benefit is included.

However, for every project an analysis will have to be done on a case-by-case basis. For example, a project that meets the additionality criterion based on the feed-in tariff of a state, may still meet the criterion if the APPC + REC price is considered in one state, but not in another.

# Analysis of benefits under the CDM and REC mechanisms



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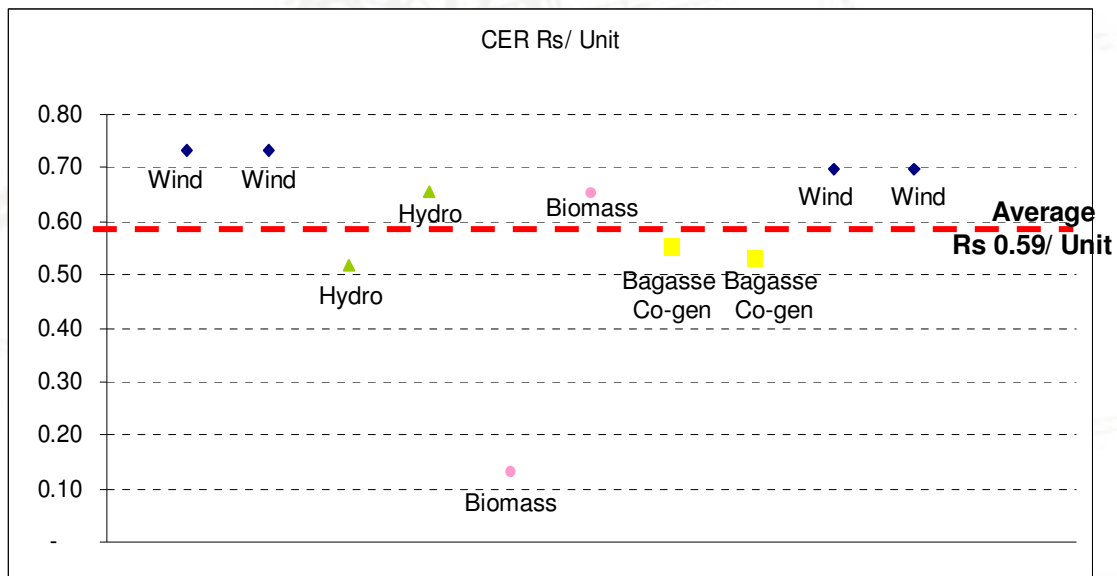
## Q: How does the benefit under CDM and REC mechanism compare?

A: The benefit needs to be compared under various parameters:

Summary:

	CDM	REC
Monetary Benefit		✓
Access (Process/ Cost)		✓
Certainty of Revenue	↔	↔

Monetary benefit\*\*: The REC mechanism, with a minimum price of Rs 1.5/unit, is clearly far more beneficial than the CDM mechanism. The below analysis illustrates this. For the purpose of the below analysis, we have analyzed several CDM projects that have seen issuance, and have factored in issuances for several years. We have also factored in projects from various geographies across India. As can be seen, the average realisation per unit of electricity produced from CDM is Rs 0.59 (excluding the outlier biomass project, it is Rs 0.64/ unit).

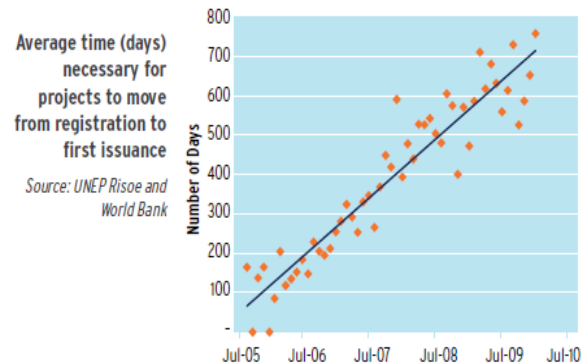
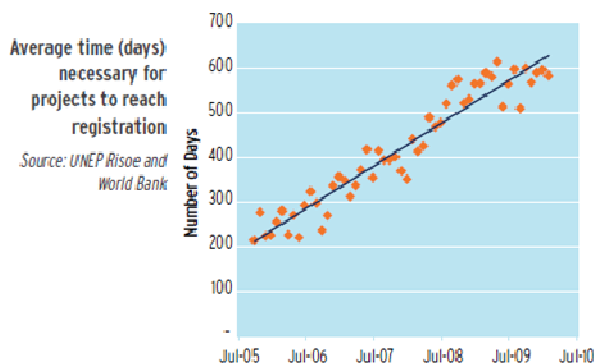


# Analysis of benefits under the CDM and REC mechanisms



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Process/ cost of access: The CDM process is notorious for its process delay and the costs that need to be incurred both in monetary terms and in time. It is not unusual to spend over 2 years in the registration process, and over a year before the first issuance is done. Monetization is therefore 3 years away from the date you start.



Compared to this, the REC mechanism promises to complete the registration/ accreditation process in 2.5 to 3 months, and issuances can be done on a regular basis from there on (realistically, the minimum timeframe for this will be monthly). Thus, monetisation will be approx. 4-5 months from the start of the process.

Certainty of revenue: CDM is an established market, with 5-6 years of trading. Once the project is registered, there is reasonable certainty of revenue.

The REC mechanism, on the other hand, is new and as yet untested. The success of the market, will depend on the extent to which various state electricity regulators implement and enforce the mechanism.



**Q: Is there a time limit after which the project should have been commissioned to be eligible for REC benefit (like in the CDM mechanism)?**

A: No. As long as the RE Generator meets the eligibility criterion set out by the CERC (see our newsletters 1 and 3 for details), the project will be eligible to avail of the REC benefits, irrespective of the date of commissioning.

**Q: Like in the case of CDM in some states, will revenue from REC have to be shared with the state utilities?**

A: Revenue from sale of RECs will not have to be shared with the state utilities. This is because, based on the eligibility criterion, an RE Generator will only be able to get REC benefit if it remains out of the purview of benefits provided by state utilities. Since the state utilities neither gain or lose any revenue from an RE Generator accessing REC benefits, it is not required to be shared.

**Q: Is an REC and CER inter-changeable?**

A: Not yet. However, this is likely in the future. This is known as “fungibility”, and various experts believe that this is the way forward for the international emissions markets. Various other countries are already working on domestic emissions markets and linking them to the international markets. In the future, it is likely that an REC will be inter-changeable with Energy Efficiency Certificates and potentially, even with Carbon Credit based on a predetermined formula.

“Fungibility with Renewable Energy Certificates can be Provided” – Dr Ajay Mathur, Bureau of Energy Efficiency, Ministry of Power (in a presentation delivered in March 2010)

\*Additionality criterion under CDM can be explained as: The project would not have been possible without the 'additional' benefit of carbon credits. Thus, without the extra monetary benefits that carbon credits provide, the project would not have been viable, and thus not undertaken.

\*\* Analysis based on CER prices as of November 1, 2010. A sample of projects from different technologies, and covering different geographies in India were selected. Only projects that have seen multiple issuances were chosen to eliminate the impact of any particular year.

# Status of RPO Regulations across States

\*Non-Solar RPO Obligation only. Solar RPO obligation in every state varies from 0.25% to 1% (As on November 15, 2010)



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State	Status of Regulation	Nodal Agency	2010 RPO Obligation (Non-solar)
Andhra Pradesh			
Assam	Draft		1.35%
Bihar	Draft		1.25%
Chhattisgarh	Draft	CREDA	4.75
Delhi			
Gujarat	Final	GEDA	4.75%
Haryana	Draft	HAREDA	1.25%
Himachal Pradesh	Final	Directorate of Energy	10%
J&K	Draft		0.95%
Jharkhand	Final	JREDA	1.75%
Karnataka	Draft		9.75%/ 6.75% (Different for certain Discom's)
Kerala	Draft		2.75%
Madhya Pradesh	Draft		0.80%
Maharashtra	Final	MEDA	5.75%
Meghalaya	Draft		0.3% (0.1% Wind, 0.2% Others)
Orissa	Final		4.5% (from 2011-12)
Punjab			
Rajasthan	Draft	RREC	6.75% Wind + 1.75% Biomass
Tamil Nadu	Draft		14%
Tripura	Final	TREDA	TBD
Uttarakhand	Final	UREDA	4%
Uttar Pradesh	Final		3.75%
West Bengal	Draft		1.8%
JERC for Goa and UTs	Draft		
JERC for Manipur and Mizoram	Final		1.75% (Manipur); 4.75% (Mizoram)



### Events

**We will be speaking at Renewable Energy Certificates Conclave 2010 in Mumbai, on November 26, 2010.** The conference will be held in Le Royal Meredian Hotel.

You can register for the conference at

[http://renewablemarketsindia.com/index.php?option=com\\_content&view=article&id=2267&Itemid=92](http://renewablemarketsindia.com/index.php?option=com_content&view=article&id=2267&Itemid=92)

### Updates

**We have updated our website with the latest news and links, and also added various features like an enhanced resources page, access to green communities . When you get a chance please visit:**

[www.reconnectenergy.com](http://www.reconnectenergy.com)

**We will be delighted to hear from you if you have comments, suggestions or feedback.**

### Key resources

The National Load Dispatch Center (NLDC) has a REC section on its website. It's a great, one-stop resource to know of various legislative and other updates on REC.

You can access the website here: <http://www.nldc.in/REC.aspx>

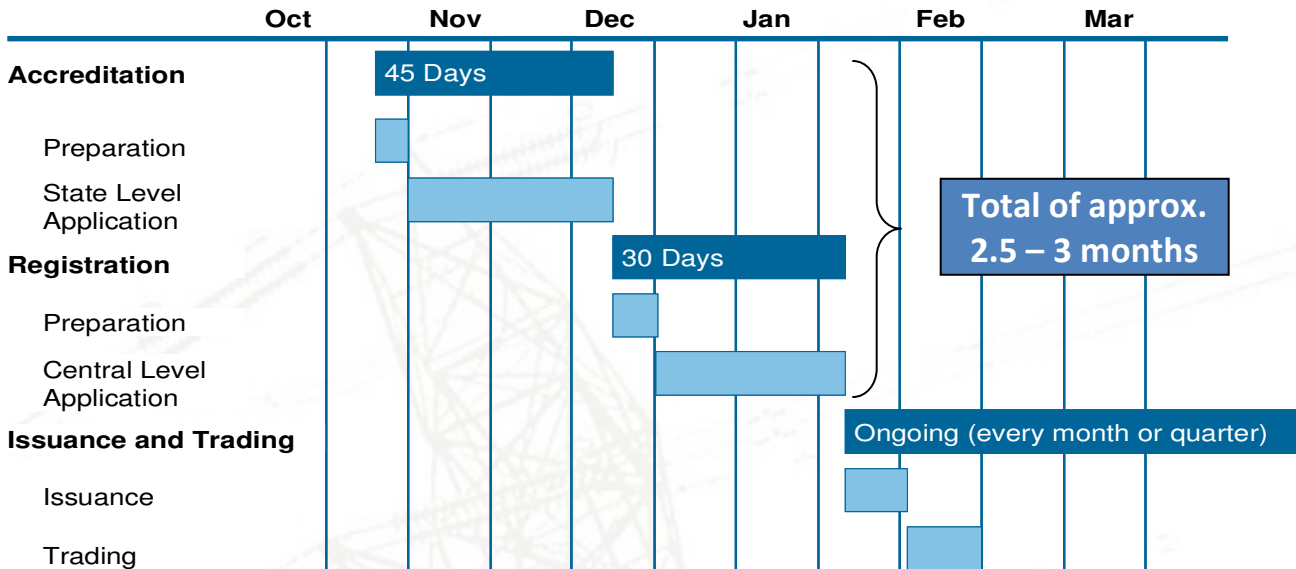


# REC Timelines and Our Services



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You should initiate the Accreditation and Registration process as soon as possible as the CERC has announced the formal start of the process



## Services We Provide

We Provide Comprehensive Lifecycle Services for RECs

Accreditation and registration support

Data compilation and Application

Obtaining issuance

Trading strategies and brokerage

For a free diagnostic to assess if your renewable energy project is eligible for RECs, please write to us.





## About REConnect Energy Solutions

REConnect is a venture focused on the Renewable Energy Certificates and Energy Efficiency Certificates markets.

REConnect's team has extensive experience in the environmental markets both in India and internationally:

- Worked in the international carbon markets for several years and has expertise in the consulting and trading of emissions reductions
- Worked in the Renewable Energy Certificate and Energy Efficiency Certificate markets in USA
- Worked with IEX, India's leading power exchange, and have extensive knowledge and experience of power markets
- Alumnus of Columbia University, an Ivy League University in USA, and IIT Mumbai

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Past Newsletters are available on our website. Please click on the link below to access

- **Volume I – Introduction to RECs**
- **Volume II – REC Implementation - Process Overview, Fees and Charges**
- **Volume III – Analysis on Eligibility of RE Captives Generators for REC Mechanism**
- **Link:**

[http://www.reconnectenergy.com/index.php?option=com\\_content&view=article&id=48&Itemid=41](http://www.reconnectenergy.com/index.php?option=com_content&view=article&id=48&Itemid=41)