

## RECs: IMPLEMENTATION ISSUES IN INDIA

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The National Action Plan on Climate Change (NAPCC) has opened up new vistas for Renewable Energy Certificate (REC) trading in India. Internationally, RECs are essentially used as a facilitating mechanism for meeting the Renewable Purchase Obligation (RPO) in the compliance market under a supportive policy and regulatory regime.

Section 86(1) (e) of the Electricity Act, 2003, has succeeded in creating an RPO framework in 16 states of India. RPO orders issued by the state electricity regulatory commissions have resulted in creating demand for renewable power in the respective states to a certain extent. Given the fact that potential of renewable energy resources is not distributed evenly across the country, and at present there is no mechanism available for inter-state sale of renewable power, the present RPO mechanism seems to have limitations for further growth of renewables across the states. Secondly, the mismatch in RPO / RPS and resource availability is also hampering the uniform growth of renewables. This necessitates the need for introduction of a market-based mechanism like RECs in India, which does not recognise geographical or physical boundaries and facilitates inter-state transaction of renewable energy with least cost and technicality involved.

The NAPCC clearly states that the National RPS must be set at 5% at the beginning of 2009–10, to be increased by 1% each year for the next 10 years. NAPCC has further clarified that SERCs may set higher percentage than the minimum national RPS. Appropriate authorities may also issue certificates that procure renewable based power in excess of the national standard. The NAPCC also allows trading such certificates to the enabling utilities falling short to meet their renewable quota obligation.

The Ministry of New and Renewable Energy (MNRE) has taken the lead in this regard and is presently preparing a model REC implementation plan for India. In this context, following important issues need to be addressed.

- Option for existing R.E. projects to participate in REC mechanism: Existing R.E. projects having PPAs with DISCOMs for contracted quantum under RPS order may not have the option to participate in REC mechanism till the validity of the respective PPA remains in existence.
- Options for New R.E. projects: New R.E. projects to be commissioned after the introduction of RECs may have two options—either to sell the electricity and the REC at a tariff determined by the respective SERC or sell only the electricity component to the distribution licensee and the REC component through market mechanism. Setting tariff for electricity and REC component in the first case and fixing upper cap on the price of RECs in the second case would be critical issues required to be addressed by SERCs.

- In case the SERCs decide to lower the present RPS target: States like Tamil Nadu and Karnataka at present have set aggressive RPS targets (10%–14%) depending on the R.E. potential available. As per NAPCC guidelines, the states may decide to bring the existing RPS target down to the level of minimum national RPS target (5%) in order to reduce the burden on the end consumers. In such cases, the excess power purchased by the DISCOM over and above the specified RPS needs to be separated in the form of electricity and REC, so that the REC can be traded across the state to entities which also have renewable purchase obligation but do not have enough R.E. potential.
- In case the price of REC is to be fixed by SERCs: In an ideal market, the price of the REC certificate should be the difference between the cost of producing R.E. power and the average power purchase cost from conventional sources in respective states. Both these costs would vary across the state depending upon several factors. The price fluctuation in the electricity market and compatibility of regulations between the participating states are issues that need to be addressed.
- In case REC price is to be explored through market: The tendency of taking undue advantage by creating artificial shortage of RECs in the market should not be ruled out. Imposing upper cap on the price of RECs may thus prove a good option.
- CDM benefit: At present, CDM benefit is shared by the R.E. generator and utility as per the directives in the National Tariff Policy. The CDM benefit is not factored in while determining the tariff by the SERCs and considered over and above the tariff. While pricing the unbundled electricity component and REC component separately and allowing generator to sell both components to different entities, modification in CDM benefit sharing formula may arise.
- Other issues: Besides the above, finalising operational mechanism for certification of RECs, REC registry and other related matters, deciding the eligible renewable energy technologies, validity and denomination of REC, penalty for non-compliance, need for gradually replacing the present R.E. tariff setting methodologies, etc., would be other issues that may require special attention.

Developing a model national REC implementation framework is at an advanced stage at MNRE. As informed by CERC, an independent board under the Ministry of Power would be set up for registration, tracking and monitoring of RECs at the national level. The Forum of Regulators (FoR) is also looking into the matter and has constituted a Task Force for detailing the proposed national REC framework.

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