

Putting Knowledge Into Action

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National Renewable Portfolio Standard (RPS) for Renewable Energy Credits (RECs)?

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As an international renewable energy developer utilizing certified emission reductions (CERs) that mandate specific procedures under Clean Development Mechanism (CDM) of the Kyoto Protocol, we find the system for Renewable Energy Credits (RECs) in the United States lacking a single national standard.

The current process under the RPS system for different states fails to provide clear unified specifications for certification, validation and verification of RECs, or address specific issues such as “additionality” and “leakage” that are critical components of a truly certified system. CERs, developed under the requirements of the Clean Development Mechanism of the Kyoto Protocol, mandate specific procedures and methodologies for certification, validation and verification.

When we compare this proven international CER process with RECs in the United States, there are different requirements for each state that is mandated by its own RPS. Today there exists several concerns inherent in the current process for RECs. For instance, there seems to be varying definitions of “green” or renewable. How is bundling versus unbundling electricity valued? How are environmental and social values handled? Is there double claiming, sale or use of the same RECs or environmental attributes?

What are RECs?

Renewable Energy Credits, or RECs, are tradable units that represent the commodity formed by the environmental attributes of a unit of renewable energy or electricity generated. Under most programs, one REC would be equivalent to the environmental attributes of one MWh (Mega Watt Hour) of electricity from a renewable generation source. RECs have been called by different names and definitions; renewable resource credits, renewable energy credits, renewable energy certificates, tradable renewable certificates and green tags.

RECs are considered to consist of two commodities: (1) the value of the electricity generated using a renewable energy source such as solar, wind, biogas, etc., and (2) the “green” non-electricity environmental benefits or attributes associated with renewable generation.

What are the Benefits of RECs?

RECs offer the potential to create a tradable market for renewable energy attributes, develop a competitive market and provide a source of funding to lower the overall cost of project development. Although the principal purpose of RECs may be used for regulatory compliance with Renewable Portfolio Standards (RPSs) in different states, it is used in the voluntary market by utilities. In this way utilities can demonstrate to electricity consumers, who have elected or chosen to pay premium prices for the electricity consumed, that the supply would be from renewable sources. RECs are also traded to offset emissions reduction projects from fossil fired units. RECs have also been used for “Greening” of events, such as making a conference “Carbon Neutral” by retiring the RECs to offset the carbon emissions calculated for the travel for all participants to the event.

Renewable Portfolio Standards

Generally U.S. companies developing renewable energy projects may be able to set-up and obtain Renewable Energy Credits (RECs), which is the prevalent offset crediting mechanism in many states. RECs are required by many states in the United States, who have developed and mandated Renewable Energy Portfolio Standards (RPS). Renewable Portfolio Standards require that certain percentage of a utilities overall, or new generating capacity, or energy sales must be derived from renewable resources. Generally RPS is backed with some form of penalties for non-compliance.

About twenty three states in the United States have adopted some sort of Renewable Portfolio Standard or a Carbon amendment. The RPS requirements legislated by the various states differ with some requiring compliance immediately versus others mandating compliance over a much relaxed schedule such as meeting energy portfolio goals by 2015 or 2025. All these states have legislated differing RPS goals, some more aggressive than others, that require higher amounts of RECs to be generated from fossil burning electric utilities. For example, 30 percent of electric generation in Maine has to be from renewable sources by the year 2000.

Conclusion

It appears that there is a wide gap and the need for a single unified RPS system to be developed for the whole country. If a unified National RPS system is developed in the United States, it should address the various issues, such as monitoring, verification, validation, and certification that are critical for a successful program. Rather than reinventing this process we need to utilize and incorporate the concepts that have been successfully built and executed by the current CER process under the CDM Kyoto Protocol in the international market.



About Dr. Prabhu Dayal and C TRADE

Dr. Prabhu Dayal, is founder and president of C TRADE, an international renewable energy development company, headquartered in Tucson, Arizona, USA since 1998. C TRADE is currently developing several projects to be qualified and certified as CERs. C TRADE designs, develops and installs anaerobic biogas digesters for methane gas production recovered from animal manure, and then used for electric power generation at several large farms in Asia. (www.ctrade.org) Email: pdayal@ctrade.org

Dr. Prabhu Dayal also serves as the Chair of EUEC 2008: the 11th Annual Electric Utilities Environmental Conference on Clean Air, Global Warming, and Renewable Energy, to held January 27 - 30, 2008 at the Westin La Paloma Resort and Spa in Tucson, Arizona, where 1,400 utility executives and world-leading experts present 300 technical presentations. (www.euec.com).



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