

# Energy Current: REC markets riding a bumpy road to transparency, liquidity

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By Jennifer Zajac

Renewable energy credits, also called certificates, gained more traction in 2007 as renewable generation tracking platforms opened, contract language was created and government officials hashed out with private sector representatives how to use RECs as a tool to promote renewable energy resources.

These nascent markets, however, remain volatile as the industry struggles with everything from how a REC is defined to how to reduce regulatory uncertainty. Changes in state renewable portfolio standards, which can affect the compliance markets, and the lack of clarity regarding demand in the voluntary REC market make long-term REC contracts and long-term forward REC markets generally unappealing to investors. REC prices vary dramatically across the country and experience wild fluctuations. Low prices and high risks can fail to make RECs an effective means of supporting new renewable energy projects. The next few years, however, are expected to bring more policy clarity and the necessary infrastructure to track REC transactions.

## Voluntary REC market to see new tracking infrastructure in '08

The national voluntary REC market continues to grow on an explosive pace, with volume more than doubling annually, according to Sterling Planet President Mel Jones. PepsiCo, for example, purchased enough RECs to match the purchased electricity used by all of the company's U.S.-based manufacturing facilities, headquarters, distribution centers and regional offices. The U.S. Environmental Protection Agency's Green Power Partnership quarterly rankings of the top REC purchasers put PepsiCo at the top as of Oct. 1, 2007, with more than 1.1 billion kWh of annual green power usage derived from various resources. Wells Fargo & Co. was second with 500 million kWh.

Yet uncertainty plagues the voluntary markets just as much as the compliance markets. Federal and state mandates may eventually require corporate REC purchases, but the outlook remains uncertain when and how such requirements would work. Companies that do buy voluntary RECs struggle with determining the value extracted from the purchases. Nevertheless, thanks to more political attention and media coverage, voluntary REC prices are expected to attract more investors and send prices higher.

"I do see the [volume] pace holding for the next couple of years [and] I do believe the markets are going to start incorporating carbon and attributes like white tags in the voluntary markets," Jones said. White tags, or energy efficiency credits, represent 1 MWh of energy savings and are created by reductions in energy usage.

In 2008, the national market will have more substantial infrastructure than it does today, which will enable voluntary REC transactions to be tracked electronically, according to Jones. An announcement on the matter is expected within the next few weeks.

## Compliance markets continue bumpy rides

REC markets have been volatile over the past three to six months, particularly in New Jersey and Connecticut, according to Andrew Kolchins, director of renewable energy markets at Evolution Markets Inc. Although interest and activity in both voluntary and compliance markets have increased dramatically over the past two years, the markets remain lacking in transparency and liquidity. The more established markets continue to tweak policy, which oftentimes results in market swings. Meanwhile, other REC compliance markets continue to take shape in New England.

New Jersey 2007 class I RECs have soared to \$40 from \$15, but 2008 class I RECs appear to be settling in a range of \$19 to \$21. Uncertainty surrounding state policy regarding its RECs fueled the runup. The state

Board of Public Utilities Clean Energy Division launched a study to examine the shortfall in the REC market. It was determined that multiple landfill gas energy facilities that are behind PJM Interconnection LLC utilities' meters that are not settled by PJM should have qualified for RECs. In November, regulators announced that the alternative energy plants would qualify for New Jersey class 1 RECs if they signed an appropriate form. That action calmed the market.

Connecticut's 2006 RECs bounced around in 2007, soaring as high as \$50 from a low in the beginning of the year around \$7.

Kolchins expects REC markets in general to remain volatile, but not particularly in the New Jersey and Connecticut markets. "These are markets that are driven by regulatory policy, and as the markets develop and regulatory policies change, the volatility will continue," he said. In Connecticut, the qualifications pertaining to construction and demolition of waste biomass facilities remain under question; in Massachusetts, qualifying renewable facilities in adjacent power pools continue to be debated.

Maine's REC market has been nearly dormant, with RECs remaining at 15 cents to 25 cents per megawatt-hour. That's likely to change in the coming years, since the state added a new provision to its RPS in an effort to stimulate construction of renewable energy facilities. Plus, more renewable energy projects are planned and expected to go online throughout New England, thanks in part to states like New Hampshire and Rhode Island, which are enacting new renewable portfolio standards. Plus, Massachusetts is working toward the passage of an energy bill that would push the existing RPS out to 2020, noted Kolchins.

"The REC markets have picked up in terms of liquidity. However, given the nuances of these markets, I continue to stress that people work with knowledgeable intermediaries because of the significant regulatory policies affecting these markets and urge restraint," Kolchins said. "The REC markets are far from a commoditized marketplace. REC trades are still structured transactions."

## REC contract paves path towards trading across markets

In February 2007, a new standard contract for RECs, called the Renewable Energy Certificate Purchase and Sale Agreement, was created by a coalition to enable RECs to trade across mandatory and voluntary programs. So far, the contract is accomplishing its goal of providing REC transaction tools to the marketplace, even if it has not been adopted in whole, according to Jeremy Weinstein, a California-based attorney who led the contract initiative. Rather, people are extracting sections from the contract that they need, such as definitions, to incorporate into contracts, mostly bilateral deals drawn up by law firms.

"We're seeing the contract helping the markets," Weinstein said. The contract also prompted government officials to open a dialogue about their role in the REC markets. The U.S. Department of Energy sponsored a one-day workshop in September 2007 for a diverse group of REC market participants to encourage increased liquidity and harmonization in REC markets. Outcomes of the workshop include exploration of DOE support for standard REC contracts by building on the REC contract.

As these markets ramp up and evolve, transactions are expected to eventually become more fluid. RECs will become more recognized as a means to accomplish renewable energy targets within the next two years, according to Weinstein. "I think what we're going to see greater market transparency, greater government scrutiny, and kind of the last ideological battles being fought," he said.

## New renewable tracking systems

In June, the Western Renewable Energy Generation Information System, known as WREGIS, was launched by the California Energy Commission. WREGIS is a renewable energy registry and tracking system for

electricity generation in the Western Interconnection, and is administered by the Western Electricity Coordinating Council. New market platforms such as WREGIS will also aid market transparency, according to Weinstein.

“Open electronic platforms on which sales of generation from specific renewable resources can be viewed will protect market credibility by showing how RECs purchases are tied to real renewable generation,” he said. “From these, it is a short technical and regulatory leap to the reporting and tracking of the prices of these sales.”

In California, regulators are warming up to RECs in terms of using them to achieve renewable goals, according to Weinstein. Regulators on the West Coast and across the country are recognizing that “each

state will benefit from fungibility of RECs across state borders, which is a fundamental goal of the REC contract,” Weinstein said. “Policies that open state compliance markets beyond state borders direct ratepayer money to where renewables can be built for the best value for money, which enhances the likelihood of states meeting potentially aggressive RPS targets for use of renewable resources while not at the same time saddling their ratepayers with higher costs due to the accidents of geography.”

APX Inc.'s Midwest Renewable Energy Tracking System, or M-RETS, began operations in July 2007. The system was established to support and stimulate the Midwest regional trading market and to help participants meet renewable energy goals and mandates by tracking RECs. *i*