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S & P Opines on Securitizing Distributed Generation

Submitted by [Ryan Hubbell](#) on Mon, 05/21/2012 - 9:00am



Renewable energy-related asset securitization has been gaining a lot of traction lately as a number of key stakeholders from both the private and public sectors have been stepping up their collaborative efforts (including [NREL's finance team](#)). To help frame the discussion and facilitate the creation of ratings-quality renewable energy asset pools, Standard and Poor's (S&P) rating agency has recently produced high-level guidance on various possible risk factors in the potential securitization of renewable energy assets, cash flows, or loans.

An opinion paper published by S&P earlier this year titled, "*Will Securitization Help Fuel The U.S. Solar Power Industry?*" (accessible [here](#)) focused on a number of risks associated with the securitization of future solar lease or power purchase agreement (PPA) payments. Like mortgages, in order for S&P to adequately assess the credit risk associated with these cash flow-based securities, payment default risks must be understood and reasonably quantified. From S&P's perspective, much of this payment default risk can be attributed to system performance, of which there is not an adequate amount of historical information that ensures solar panel performance is maintained over the full length of most 20-year PPA and lease cash flow agreements.

The main concern for S&P is that a decrease or lack of performance could eventually lead to an increase in defaults if off-takers decide to stop making payments because actual production is not what they expected or were told by developers. Product failure rates could also negatively impact cash flows if they force either manufacturers or developers out of business. In addition, a potential lack of serviceability is another concern for S&P as it believes there is a current shortage of operation and maintenance providers with a national presence.

Interestingly, S&P also cites solar system price declines as another potential cash flow risk factor. Cognizant of the recent run of payment renegotiations and defaults experienced by both the mortgage and credit card industries, S&P points to similar risks that could develop from technological advancement and continued price declines. According to the paper, "As the price of solar systems decline, it is likely solar lease and PPA prices will fall as well...[which] could leave many PPAs being underwritten today to be above market contracts [in the future]." Analysts contend that these future out-of-market contracts may cause off-takers to feel a sense of "buyers' remorse," which could cause them to attempt to reduce future payments.

While payment renegotiations are possible, it seems the default risk associated with buyers' remorse would be low as long as the production value of electricity meets or exceeds the off-takers' monthly payments. For most agreements this will be dependent on retail electricity prices, not installed system costs. That said, predicting long-term (20-year) utility rates "has a high margin for error," according to the S&P paper, so PPA agreements with built-in price escalators may carry more risk than lease-based cash flow agreements.

In the event of default, recovery rates are also deemed questionable primarily due to the costs associated with system removal and reinstallation. Systems not removed that fall under PURPA (Public Utilities Regulatory Policies Act), however, could generate revenues from sale-back prices that reflect a utility's avoided cost. Finally, S&P believes there to be a number of so-called liquidity risks, including "ramp-up" or "roll-out" risks that include geographic concentration risk, dividend/equity payments, and other potential cash leakages such as inverter replacements.

Clearly, there are a number of risks associated with securitizing any pool of assets, renewable energy-related or otherwise. Given the financial market's propensity to aggregate, package, and sell assets in the spirit of risk diversification, it seems renewable energy-related securitization is only a matter of time. That said, the ability to *accurately* price these financial assets hinges upon the market's ability to appropriately price risk—a goal everyone should be mindful of and an endeavor regulators and ratings agencies must ensure.

Source:

Andrew J. Giudici, Jeong-A Kim, Brian Yagoda. *Will Securitization Help Fuel The U.S. Solar Power Industry?* Standard & Poor's, 55 Water Street, New York, New York 10041, 2012.

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