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Elizabeth L. Aldrich, *Boise State University*

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Creative Renewable Energy Purchasing Options for Businesses

Elizabeth Lokey
Environmental Studies Ph.D. Candidate
University of Colorado
Argosy Foundation Fellow
Rocky Mountain Institute
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Abstract

A growing number of businesses have begun to consider the benefits of voluntarily purchasing renewable energy. This new interest from large commercial clients has prompted green energy providers to create novel ways for these entities to get involved in the long-term development of new renewable energy generation. Some of these new plans are designed so that the purchase of this energy can provide long-term off-take stability and other financial benefits to companies developing the renewable energy projects. However, since some of these new purchasing options involve a certain amount of financial risk on the part of the business, there is a role for two new insurance products.

Introduction

A number of drivers have led commercial entities to begin exploring options of purchasing and creating their own renewable energy. Companies first began purchasing green power to improve their image for public relation purposes. Advertising the use of renewable energy allows businesses to further differentiate their products from competitors, and this appears to have been the primary motivator for early purchases in the commercial sector.[i]

However, since 2001, when green power providers began devising creative pricing schemes for commercial clients to become involved in the long-term development of renewable energy generation, businesses have begun to realize the financial benefits of purchasing renewable energy. Choosing renewable energy, which has stable operating costs, provides these businesses with a hedge against volatile electricity prices. Forward-looking companies also hope to derive financial benefit from renewable energy in a future regulatory environment like the Regional Greenhouse Gas Initiative in the Northeast where carbon restrictions are designed to create a market for carbon offsets.

This new commercial interest in green energy has inspired the creation the Green Power Market Development Group,[ii] which includes large businesses who set renewable energy purchase targets, and the EPA Green Power Partners, which provides assistance and recognition to businesses that purchase green power.

Most of the 64 green energy providers in the U.S. still focus the bulk of their marketing efforts on residential customers, but a few of the largest and most established green energy providers have begun expanding their options to include unique plans that are tailored towards large commercial clients. Because the product offerings can vary significantly from regulated states to restructured states, this paper is organized according to the type of states where the product can be purchased. The first section will briefly describe the well-established options available in both regulated and restructured states while the second section will explain the more-creative offerings that are unique to restructured states.

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Offerings Available in Both Regulated and Restructured States

Purchasing RECs

Introduction to RECs

Renewable Energy Certificates (RECs) (also known as Green Tags and Tradable Energy Certificates) represent the environmental attributes of renewable energy. RECs were initially developed as a method of accounting for the renewable energy produced to satisfy Renewable Portfolio Standards (RPSs), but a voluntary market quickly developed, with consumers in areas without access to renewable energy buying the RECs to offset their energy use.

RECs allow the purchasers to advertise their support of renewable energy and to offset their greenhouse gas emissions, which are created through the burning of natural gas or coal. By purchasing RECs from any one of 40 providers, the company is not directly buying green power, but instead is helping to support the green power industry by purchasing a commodity that can be sold separate from the actual electrons produced by renewable energy generators.

The REC provider helps the company negotiate how and where to buy these RECs from. The last entity to buy the REC will "retire" it by agreeing not to resell it. At that point, the retiree of the REC can take credit for the purchase of the renewable energy.

Prices for RECs vary widely

The least expensive RECs are usually produced by wind farms in the West and Midwest, and can frequently be purchased for between $1 and $4/MWh (0.1 - 0.4 cents/kWh) . Local RECs, generated in close proximity to the business's operations, are typically more expensive because the renewable resources near these facilities are not as optimal.[iii] For example, wind RECs generated from upstate New York sell for close to $25/MWh.[iv]

Similarly, since the price of renewable energy varies according to the type of generation, clients who want RECs exclusively from solar energy will have to pay up to twenty-five times more, as much as $20-50/MWh.[v]

One Canadian REC marketer, VisionQuest, currently trades RECs between the U.S. and Canada, but this market is fledging and complicated by different certification methods in the U.S. and Canada. In the future, a larger, NAFTA-based trading system based on a standardized certification process could reduce the cost of RECs by increasing the size and liquidity of the market.[vi]

Of course, when a large client buys many RECs in a long-term contract, they can get a better price.

Tax advantaged purchases

The expense of purchasing RECs can be further decreased if a company wants to relinquish ownership of the RECs and donate them to a non-profit. In this case, the business could count this expenditure as a charitable expense, and take a tax deduction. The non-profit involved (like Clean Air, Cool Planet or The Bonneville Environmental Foundation) typically then promises to retire the REC.[vii]

Instead of donating RECs for a tax deduction, businesses can also purchase RECs each year and count the purchase as an annual operating expense for public relation purposes.

Tailored offerings

Most REC providers will work with large clients to tailor the RECs purchase to match the clients' needs. Some REC providers will assemble a portfolio of RECs for large customers that consist of a specified mix of renewable energy from biomass, hydro, and wind. Renewable Choice Energy of Boulder, Colorado recently worked with Vail Resorts to devise a REC purchase that could be marketed to their customers. Vail was concerned that increased emissions from fossil fuel-powered plants could undermine ski industry operations.[viii] They felt that offsetting their energy requirements with RECs generated exclusively from wind power would be the easiest and most direct way to explain to their clients that clean energy is used to power the Resort's operations.

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How to find RECs

Purchasing renewable energy by buying RECs is probably the easiest and most versatile form of green power purchase. For example, it can be well suited for a client who has a variety of sites across the country and does not want to juggle accounting information from a number of green energy providers. Larger businesses or small ones that have aggregated together through an association could enter into long-term contracts for the purchase of large amounts of renewable energy from wholesale marketers who own renewable energy generation or have contracts for the purchase of this energy. Or, companies could purchase RECs through the 6 certificate brokers currently offering locally, nationally, and internationally-generated RECs.

Businesses hoping to purchase RECs can also seek an affordable purchasing option by issuing a request for proposal and posting it for free on the Office of Energy Efficiency and Renewable Energy's Green Power Network's website. On this site, REC purchasers can specify the exact product they would like to buy by describing the kind, amount, geographic origin, and length of time of their REC purchase.[ix] Another option for REC purchasers is to become a member of the carbon broker, Evolution Markets, and have access to their bulletin of nationwide REC prices, which would allow buyers to choose the cheapest RECs in their region or the country.[x] A comprehensive list of REC providers is detailed in Lori Bird and Blair Swezey's annual report on Green Power Marketing in the U.S.[xi]

Forward Purchasing of RECs

Forward purchasing RECs that will be generated throughout the life of a new renewable energy project is a creative variation of the direct purchase of RECs option. In this model, the client pays upfront for future RECs generated throughout the life of a specific project. Then, in the subsequent year, the business buys the forward RECs associated with a different new project.[xii] This model offers particular advantages to businesses using the REC purchase for public relation benefits. In each current year, they purchase enough RECs to offset their consumption, but in each year they have a new "story" to tell about the plant that they assisted.

The EPA's Green Power Partners currently accepts this type of arrangement as legitimate, but Green-e, a REC certifier that strives to protect customers and avoid double-counting of these RECs, does not certify RECs purchased in this way because of the liability that the customer must accept for the future quantity of RECs that will be generated during the subsequent years.[xiii] Given the liabilities that the client assumes in this forward purchasing of RECs model, insurance to guarantee that these RECs will be generated in the future could assuage client fears and help this model achieve Green-e certification.

Of course this model and hedging benefits against future energy price volatility since the customer is only purchasing the RECs instead of negotiating a fixed price for the actual electricity. However, this model does have the advantage that it may be more likely to pass additionality tests in future GHG markets, since the wind development supported by this purchase would demonstrably not have occurred without this funding.

Native Energy of Vermont has worked with many big industry partners such as Ben and Jerry's, Cliff Bar, Timberland, Aveda, The Dave Matthews Band, Stonyfield Farm, the Clinton Global Initiative, and the production of "An Inconvenient Truth" to arrange these types of REC purchase agreements. Some of these clients like Ben and Jerry's prefer this type of forward purchasing because aids the development new wind installments as opposed to the purchase of already existing RECs that do not directly encourage new generation.[xiv]

Buying Green Power from Local Utility or Power Provider

Over 90 utilities and load serving entities in 30 regulated and deregulated states[xv] offer green pricing programs that allow residential and commercial customers to purchase renewable energy through the utility, usually at a premium.[xvi] Some programs, like Austin Electric's *GreenChoice* Program, will allow large commercial customers to enter into a multi-year, fixed price contract. This type of program can offer customers the benefit of being sheltered from fuel price volatility, which can be a valuable option. For example, this hedging value saved IBM $60,000 in 2004.[xvii] Currently, Xcel Energy,[xviii] We Energy of Wisconsin, and Oklahoma Municipal Power Association either waive the fuel cost adjustment or offer discounted green power rates to their commercial customers.[xix]

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In areas where utilities do not offer these special programs to their customers, some green power providers will work with municipal utilities and green energy generators to arrange a fixed, long-term clean energy price for businesses. Boulder Colorado's Clean and Green makes agreements with 12 municipal utilities across the country, and can negotiate twenty-year fixed price contracts for clients. The client still purchases its electricity from the local municipal utility, but pays a fixed price and gets the RECs generated from the wind energy.[xx]

Directly Invest in Renewable Energy

As an alternative to the options above, businesses can opt to purchase renewable energy installations. However, this option carries with it all of the intrinsic problems associated with diversifying into a new, and typically unrelated, line of business.[xxi] Large corporations could choose to be a single owner of new generation receive all of the profits from the power, or groups of smaller businesses could structure themselves in any of several different structures to own a generation installation jointly.

Like other renewable owners, businesses that own renewable generation can take advantage of a number of state and federal incentives. For wind projects, the 2006 Farm Bill offers grants and guaranteed loans for eligible projects.[xxii] The Federal Production Tax Credit currently offers wind farms 1.9¢/kWh of energy produced for the first ten years.[xxiii] Since its inception in the 1992 Energy Policy Act, this credit has been inconsistently supported, creating gaps in its existence and a boom and bust of wind developments. A double-declining balance, five-year depreciation schedule further bolsters support for wind developments. State incentives available through renewable electricity standards, tax incentives, clean energy funds, and other programs are available in some areas.[xxiv]

Installing Renewable Energy

Installing renewable energy allows businesses to receive a fixed price for a portion of their electricity, locally-generated RECs, and publicity for their tangible commitment to a cleaner environment. Businesses can install all types of renewable energy systems like biodigesters that burn methane produced on-site, photovoltaic systems, micro-hydro systems, and wind turbines. Many businesses will size their system so that they can use all the power that they generate. But typically only those businesses in states that have net-metering laws can sell any excess power to the grid. Federal and state rebates for on-site renewable energy vary by source. The Database of State Incentives for Renewable Energy at www.dsireusa.org has information about state-specific incentives and the existence of net metering in each state.[xxv]

Options for Restructured States

Long-Term, Fixed Price Contract

In restructured states, green energy marketers can act as a buyer's agent by simultaneously negotiating a power purchase agreement with a renewable energy plant, and tying that to a long-term level energy price negotiated with the load serving entity (LSE). The long-term, level price is based on the price of the renewable power plus compensation for the distribution costs, and the cost of firming the renewable energy. The client continues to receive its electricity from the same distribution company but at a long-term level price.

The length of these contracts varies, but they are usually between ten and twenty years. The client must be credit-worthy in order to provide reassurance to the distribution company. Depending on how the deal is negotiated, the power purchase agreement with the LSE should be of high-enough quality that the project developer can use it to bolster his *pro forma*. However, in order for this type of arrangement to be workable, the LSE must have prospective renewable energy generation in its service area and be amenable to entering into this contract.

There are several benefits to this long-term contract. It could provide a hedge against future volatile energy prices. This type of contract would be beneficial in the Northeast, California, and Pennsylvania, New Jersey, and Maryland (PJM) services area, for example, where energy prices are expected to escalate dramatically in the next several years. Also, the purchasing business would be playing a direct role in the development of new renewable energy relatively close to the location of the store or warehouse in question.

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If the client wants to take credit for using renewable energy and purchase the RECs from the generator, he has a potentially interesting financial option. Instead of simply taking the RECs and retiring them, the client also has the option of arbitraging the price of local RECs against the price of low-cost national RECs, usually produced from wind in the Midwest. There is a market for local RECs even though they are more expensive because states with renewable portfolio standards typically provide some preference for RECs from local renewable sources. In addition, some REC customers prefer to buy locally-generated RECs because of the support this purchase lends to local industries.

Despite these many benefits, this type of contract may be difficult to put together. It is only a viable option where there is a restructured electricity market, energy prices are high, and renewable energy is available and reasonably-priced.

Businesses interested in this model could utilize the services of a number of green power marketers, but some marketers have a particular focus on certain areas since that is where there experience lies. Sterling Planet has experience with large clients on this type of contract in the Pennsylvania, New Jersey, and Maryland (PJM) region, but would be willing to negotiate contract in any deregulated state for a client that could enter into a contract for 15-20 MW of generation.[xxvi]

If the business wants to cut out the middleman, it could switch power providers and choose a licensed power provider that is also a green power marketer to negotiate a fixed price with a renewable energy generator. In Texas, Green Mountain Energy would serve a commercial client's needs.[xxvii] Green Mountain offers a naming rights program that allows customers enter into a long-term, fixed price contract with Green Mountain for the energy generated by a certain number of turbines at Green Mountain's Brasas farm. [xxviii] (Although Green Mountain offers the naming program, they have never had a client take them up on this option.)

In California, businesses can negotiate directly with a licensed power provider and green power marketer called 3 Phases to create a long-term, fixed price green power contract.[xxix] Like Green Mountain Energy, 3 Phases is both the green energy provider and distribution company; therefore, interested clients would need to switch their power providers to 3 Phases. 3 Phases, which has created these types of contracts since 2001 and works with large clients like Whole Foods, now operates extensively within California and is hoping to expand operations to Oregon and Nevada, which are also direct access states. Currently, this offering by 3 Phases in California is only available for certain California customers who are not served by the local utility and had facilities built before 2001.[xxx]

Contract for Differences

A contract for differences is typically structured as a "side" or third-party agreement that provides a hedge against energy price volatility. The business would continue to purchase power through its utility, but lock in a long-term (typically for 10 years) price for a portion of its power with a green power provider. When the spot price for electricity is above the target, or strike price, the green energy generator pays the client the amount over the agreed price that it sells on the market. When the spot price is lower than the strike price, the generator bills the client. No electricity is actually exchanged between the wind farm and the client. RECs associated with the energy produced by the wind may or may not be sold with the energy volatility hedge product, depending on the client's interest.

Currently the only green power provider offering this option is Community Energy. The only types of organizations that have taken advantage of this type of product are non-profit, credit-worthy entities like Ivy League universities. Due to the FASB 133 rules, which define the minimum effectiveness of derivative products used as a hedge, Community Energy representatives foresee potential accounting problems with use of this product by a corporation. For-profit entities are bound by these FASB 133 rules, which mandate short-term hedge effectiveness with a correlation ratio of between 80-125%. Unfortunately, since these new products have not yet had a long enough track record to prove their effectiveness, they are ineligible to meet this rule.[xxxi]

Businesses interested in this model should be aware that the wind farm would only pay the client when the spot price is above the agreed-upon price *and* the wind farm is producing electricity. Therefore, the client assumes the risk that the wind will blow when the spot price is above the negotiated price.[xxxii]

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Another complication is that the client's physical operations should be located in the same regional electricity market as the wind farm, because the spot price for electricity will vary significantly from region to region. If the client has many locations nationwide, this scheme would only apply to those that were located in close proximity to the wind farms that Community Energy develops.

An alternative scheme meant to avoid this problem and simplify accounting for businesses with nationwide operations that want to make a large commitment to renewable energy is called the "financial contract for differences." In this strategy, the business would retain its energy contracts throughout the country and again enter into a separate contract with a wind developer. The business and developer would agree upon a strike price that is based on the business's overall average electricity price and the regional price that the wind farm could get for its electricity. [xxxiii] This model only works well for both the generator and business if these two prices are closely correlated.

This financial contract for differences model—offered by Evolution Markets—to date has never been executed. Potential clients may find that the FASB 133 rules also deem this derivative project to be too ineffective as a hedge. Also, if the business's average price of electricity and the price that the wind developer can get paid for feeding the electricity into the grid are not closely correlated, then it could be difficult to negotiate a contract price. Ultimately, the biggest problem with this option may be the regional variation in power prices. Since the cost of electricity averages 14.3¢/kWh in New England and 6.27¢/kWh in the Midwest, it may be difficult to correlate a nation-wide average energy price with the regional price that a wind farm could earn.[xxxiv]

Summary of Renewable Energy (RE) Purchasing Options

All Areas	**Restructured States**	**National Accounts**
Purchase RECs from green power marketer or utility	Invest Directly in RE	Financial Contract for Differences
Install RE	Long-Term Fixed Price Contract	
Forward Purchasing of RECs and Tax Deduction	Contract for Differences	

Conclusion

Like most power purchase agreements, buying renewable energy is complicated by the variety of existing state electricity regulations. However, purchasing renewable energy is further complicated by the uncertainty associated with the fungibility of RECs and the immaturity of the REC markets.

One of the interesting features of the renewable energy markets today is that they can serve such a broad span of corporate needs. Today these markets are attracting companies looking for everything from socially responsible investments to burnish their image to physical or financial hedges for volatile fuel and electricity prices.

Of course, many customers in these markets have multiple interests. For example, nationwide or regional businesses that want to make a commitment to renewable energy may want to consider working with multiple green energy marketers to utilize more than one of the options presented. A business might consider purchasing a fraction of its energy through a long-term, fixed price contract, and then offsetting another portion (or the remainder) of its electricity with a forward purchase of RECs. In this way they would have both hedged their future energy purchases, but also offset their emissions while directly promoting the development of new renewable generation. A hybrid portfolio of the models presented could help a business benefit financially whether future energy prices decline or increase. Buying these various products in both short and long-term contracts would allow the business to make portfolio adjustments according to future energy prices and help insulate the client from uncertainty in these emerging markets. .

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Which of these options proves to be the most lucrative will depend on the stability of future fossil fuel-generated electricity prices, the future incorporation or omission of RECs into emerging national carbon markets, the success of new and existing renewable energy generators, and future regulation with respect to Renewable Portfolio Standards (RPSs). Currently about half of the states in the U.S. have RPSs; if more states adopt these standards, then of course this will increase the demand for RECs.

However, fungibility of RECs across state lines will become more and more of an issue. Currently, RECs from other states can be purchased to satisfy RPSs in most states, but RECs that are generated in-state are usually given some preference (e.g. in Colorado by 1.25x).[xxxv] As more states adopt RPS measures, and the market for RECs grows, it seems likely that the market for arbitraging locally-generated for nationally-generated RECs could grow.

Future changes in the regulatory environment and new insurance products may make the forward purchasing of RECs and the contract for differences more appealing to potential commercial clients. There is a huge opportunity for the insurance industry to protect clients against uncertainty surrounding the future generation of RECs. Insurance for this product may change the current lack of Green-e certification for forward-purchased RECs and instigate a myriad of new renewable energy developments.

Another insurance product that would help develop the contract for differences is protection against the uncertain generation of electricity when the spot price is above the strike price. Since customers currently only receive money from the wind farm when electricity is generated by the farm and concurrently the spot price is above the strike price, customers assume a great deal of risk that the wind will not blow when the spot price is higher than the strike price. Providing insurance for the generation of electricity at this time would assuage customer fears and provide a more convincing argument of the financial benefits of the contract for differences.

The case for selling renewable energy, whether as power or RECs, into the commercial and industrial markets seems likely to grow over time. The broad range of products offered today is a testament to the innovative nature of a young and vibrant market. Increasing fungibility across state lines and adoption of RPS measures in additional states will add depth and liquidity to the existing markets. Finally, as corporate and individual consciousness of climate change issues grows, the pressure to capture the benefits of RECs as greenhouse offsets is also likely to grow.

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[i] Craig, Hanson, "The Business Case for Using Renewable Energy," Corporate Guide to Green Power Markets, World Resources Institute, December 2005.
[ii] "The Green Power Market Development Group," *World Resources Institute,* http://www.thegreenpowergroup.org/
[iii] Sales Representative, Sterling Planet, August 3, 2006.
Andrew Aulisi and Craig Hanson, "Developing 'Next Generation' Green Power Products for Corporate Markets in North America," Corporate Guide to Green Power Markets, World Resources Institute, December 2005, 3.
[iv] Sales Representatives, Sterling Planet and NativeEnergy, August 3, 2006.
[v] Steve McDougal, Senior Manager of Business Development, 3 Phases, Personal Interview, August 4, 2006.
[vi] In the U.S., Green-e, a REC certifier that strives to protect customers and avoid double-counting of these RECs, evaluates the MWh generated to be sure that they are derived from approved renewable sources. Canada's Green-e equivalent, Terrachoice, evaluates renewable generation facilities and certifies them with its Ecologo. RECs sold from the U.S. to Canada must have been generated at an Ecologo-certified facility; Canadian RECs purchased by entities in the U.S. are Green-e certified if the generation facility that produced the MWh is Ecologo-certified. The future of trading between the U.S. and Canada depends on the regulatory environment. British Columbia, Alberta, and Ontario are considering Renewable Portfolio Standards that would value RECs. However, the new Canadian administration may not honor the Kyoto Protocol, which would decrease value for RECs. (Dan Lieberman, Director of Clean Energy Policy and Lead Green-e Certifier, Center for Resource Solutions, Personal Interview, August 16, 2006.)
[vii] "Dave Matthews Band Supports Environment," WebWire, Internet Press Release Resource, July 11, 2006, http://www.webwire.com/ViewPressRel.asp?SESSIONID=&aId=16497.
[viii] Luke Cartin, Environmental Coordinator, Vail Resorts, Personal Interview, August 4, 2006.
[ix] Green Power Network, U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy, http://www.eere.energy.gov/greenpower/financial/archives.shtml
[x] Evolution Markets, Lenny Hochschild, Director, Environmental Markets, Personal Interview, August 9, 2006.
[xi] Green Power Marketing in the U.S.: A Status Report (8th Edition). Available at http://www.nrel.gov/docs/fy04osti/35119.pdf.
[xii] Tom Stoddard, Native Energy, Personal Interview, August 8, 2006.
[xiii] Dan Lieberman, Director of Clean Energy Policy and Lead Green-e Certifier, Center for Resource Solutions, Personal Interview, August 9, 2005.
[xiv] Tom Stoddard, Native Energy, Personal Interview, August 8, 2006.

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[xv] There are sometimes incentives in deregulated states for clients to switch energy providers. In New York, the state encourages customers to switch from their local utility to a DISCO by exempting customers from sales tax on the electricity.[xv] Businesses that are currently served by the local utility could switch to a DISCO that offers green energy purchases and apply the money saved through the sales tax exemption on the delivery of the electricity towards the premium for purchasing green energy. This incentive is enough to provide local RECs for 20% of the customer's electricity usage and national RECs for 50% of the customer's usage at New York's current sales tax rate of 8.625%. (Mike Forese, Sales Account Manager, Community Energy, Personal Interview, August 15, 2006.)
[xvi] "Retail Green Power Purchase," Green Power Market Development Group, World Resources Institute, www.thegreenpowergroup.org.
[xvii] Andrew Aulisi and Craig Hanson, "Developing 'Next Generation' Green Power Products for Corporate Markets in North America," Corporate Guide to Green Power Markets, World Resources Institute, December 2004, 9.
[xviii] In Colorado, Xcel WindSource customers waive the percentage of the fuel adjustment fee that they purchase in wind. During the winter of '05-'06 customers were saving money by purchasing wind energy and there was a waiting list to enter the program. However, Xcel is now considering adding this fuel adjustment fee back to WindSource customers' bills, making wind energy always more expensive than conventional energy. (Steve Raabe, "Steady Wind Means Pricier Power," Denver Post, Business, August 7, 2006.)
[xix] Lori Bird and Blair Swezey, "Green Power Marketing in the United States: A Status Report (8th Edition)," National Renewable Energy Laboratory, October 2005.
[xx] Clean and Green can currently offer these types of contracts from a new 30-MW wind farm (to be expanded to 100 MW by 2008) in New Mexico that it is helping to develop. (Jerry Demaron, CEO, Clean and Green, Personal Interview, July 31, 2006.)
[xxi] "Know Your Business Structure," Windustry, August 2, 2006, http://www.windustry.org/basics/06-business.htm
[xxii] "Energy and Agriculture: Wind Energy in the Farm Bill," Windustry, July 6, 2006, http://www.windustry.org/farmbill/
[xxiii] New wind development can take advantage of the current production tax credit (PTC) of 1.9¢/kWh expires December 31, 2007. Projects initiated after that date will be subject to the future PTC. ("Energy Bill Extends Wind Power Incentive Through 2007," American Wind Energy Association, News Release, July 29,2005.)
[xxiv] "Wind Energy Policy: Federal Incentives and Policies," Windustry, July 21, 2006, http://www.windustry.org/resources/legislation.htm
[xxv] In regulated states, system owners will typically receive a rebate based on the size of the system and the RECs generated. In some restructured states like New Jersey and California, licensed green energy providers will install renewable energy on their facilities, feed this electricity into the grid, finance, own, and operate the system. The green energy provider will sell the business that loans its facility space RECs and electricity at a long-term, fixed price rate. Or, the facility can sell these RECs if there is a market for them at the time. Since solar RECs are more valuable than RECs generated from other sources, the building owner can work with the green energy provider to sell these RECs to utilities that offer their customers solar RECs or other renewable energy customers that prefer to purchase solar RECs. In California, 3 Phases has worked with Fetzer Vineyards in this type of agreement to install a 41-MW photovoltaic system on the roof of the Vineyard's administration building. Fetzer is now well known for their commitment to renewable energy because of this installation. (Steve McDougal, Senior Manager of Business Development, 3 Phases, Personal Interview, August 4, 2006.)
[xxvi] Joe Barclay, Vice President of Procurement, Sterling Planet, Personal Interview, August 17, 2006.
[xxvii] Green Mountain Energy serves the areas of Texas that are restructured. Only a few areas of the state like San Antonio and Austin are not restructured. Austin Energy offers a GreenChoice program that offers large customers like the Austin Independent School District fixed prices on energy for a set number of years.
[xxviii] Scott Martin, Director of Commercial Sales, Green Mountain Energy, Personal Interview, July 36, 2006.
[xxix] Only electricity customers who switched to alternative service providers (ASPs) when California became restructured and have not yet changed their service back to their local utility are eligible to work with Three Phases. Customers whose buildings were constructed after April of 2001 cannot now choose to work with Three Phases.
[xxx] Steve McDougal, 3 Phases, Senior Manager of Business Development, Personal Interview, August 4, 2006.
[xxxi] Angela LJ. Hwang and John S. Patouhas, "Practical Issues in Implementing FASB 133," American Institute of Certified Public Accountants, 2001, http://www.aicpa.org/PUBS/JOFA/mar2001/hwang.htm.
[xxxii] Andrew Aulisi and Craig Hanson, "Developing 'Next Generation' Green Power Products for Corporate Markets in North America," Corporate Guide to Green Power Markets, World Resources Institute, December 2004, 11.
[xxxiii] Lenny Hochschild, Director, Environmental Markets, Evolution Markets, Personal Interview, August 9, 2006.
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