

# CORPORATE COUNSEL

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## Five Approaches to Corporate Purchase of Renewable Energy

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In 2009 Google perplexed the energy world by filing with the Federal Energy Regulatory Commission a request to grant wholesale power marketing authority to a new subsidiary, Google Energy. Industry chatter was initially cynical and included frequent references to Enron Corp., but Google soon made clear its laudable intentions. In 2010, Google Energy signed a 20-year power purchase agreement (PPA) with NextEra Energy Inc., pursuant to which the company would purchase 114 megawatts (MW) from a wind farm near Ames, Iowa. Google has since announced several other PPA transactions, totaling over 500 MW and making it the country's largest corporate purchaser of wind energy.

Growing awareness of the Internet's enormous power use, along with pressure from the environmental community, led to similar announcements from other high-tech giants. In 2012, Apple Inc. announced construction of a 20 MW solar plant adjacent to a data center. In 2013, Microsoft Corp. acquired the output of the 100 MW Keechi Wind Project in Texas, and Facebook Inc. acquired the output of a 139 MW wind project in Wellsburg, Iowa. In the retail sector, in 2014 IKEA announced the purchase of a 98 MW wind farm in Illinois, while Wal-Mart Stores Inc. had installed so many solar systems on its stores that it was the largest corporate solar buyer in the U.S.

Companies do not need enormous balance sheets or piles of free cash to follow the path blazed by these high-tech and retail leaders. Most members of America's Fortune 1000 have corporate sustainability, carbon or renewable energy policies; many are implementing these policies in ways that save money, reduce long-term energy supply risks or both. Over the past decade an exciting array of new technologies, business models and financing structures have emerged to meet the needs of corporations wishing to purchase renewable energy.

Evaluating these emerging options is especially important for companies whose power consumption is high and represents a substantial portion of overall operating cost (e.g., data centers, fulfillment and distribution centers, multi-site retail operations, food processing, chemical and industrial manufacturing). In-house attorneys at such companies are perfectly situated to address the structural, legal and risk issues posed by renewable energy purchasing options. This article attempts to assist counsel in that effort by providing an overview of five primary transaction structures for buying renewable energy, a summary of their benefits and limitations and an assessment of which structures make sense for what types of buyers. The five transaction structures are presented in order of increasing sophistication and potential substantive impact; that is, each subsequent structure addresses some of the limitations of the former structure.

### **1. Starting Simple: Green Tags**

Until recently, most corporate purchases of renewable energy were short-term purchases of renewable energy certificates (RECs or "green tags") geared to offset a targeted percentage of a company's overall energy use. RECs are not energy; they are paper commodities representing the tracked and audited

“green-ness” of renewable energy; when a company buys an REC, it gets to claim that green-ness. The U.S. Environmental Protection Agency encourages such purchases with its Green Power Partners program, providing membership and public relations benefits for participants that buy RECs sufficient to offset at least 10 percent of their energy use.

In a typical REC purchase, the buyer contracts with a REC marketer for delivery of a specified volume of RECs generated in a particular year. Such purchases are fast and easy transactions, requiring little in the way of start-up costs, research and internal staff time. As a one-time purchase of a paper commodity, they present little risk to a corporate buyer. And despite being a paper commodity, thanks to nonprofit certifying organizations like the Center for Resource Solutions, RECs have a strong national reputation for legitimacy. With REC purchases, companies can proudly tell their own employees and the world at large that they have purchased renewable energy instruments sufficient to offset a targeted percentage (or all) of their corporate energy use.

RECs tend to be used primarily by individuals and smaller businesses for several reasons. In the current market, REC purchases are typically for one year or a short term of years; buyers are therefore subject to annual market swings and cannot know, over time, what level of environmental benefit they can secure per dollar spent. And although REC purchases can be tied to a particular wind or solar project, the argument that they actually cause the project to be built is abstract. RECs thus face a “light green” perception in some quarters. Finally, RECs do not provide physical power to a buyer and do not help with the buyer’s overall energy cost and supply risk. Some companies thus view them as a marketing expense rather than an investment.

## **2. Getting Cozy: On-Site Solar Power**

Starting around 2006, the industrialized world has seen explosive growth in on-site, retail renewable energy (primarily solar) to residential, commercial and industrial customers. In 2012, this industry installed over 1,000 MW of new solar-energy systems in the U.S. Solar panels have been installed on the rooftops and in the parking lots of retail stores throughout the country, on warehouses and distribution centers, corporate campuses and numerous universities.

An on-site solar-energy system is usually owned by the developer, with the power being sold to a corporate host customer pursuant to a 15 to 20-year agreement—either a lease or a power purchase agreement—the price of which is below the company’s current retail power rates. The positive values of on-site deals include: no up-front capital expense, long-term price security and very strong corporate branding. Moreover, because the marketplace of solar developer companies is large and crowded, corporate customers have the ability create competition for the privilege of being the company’s solar provider.

On-site solar is particularly useful for companies that expect stable or growing energy use over a substantial term of years, and that have plenty of flat roof or parking lot space that is either owned or leased long-term. The solar agreement requires the buyer to take or pay for the system’s entire output and therefore locks the buyer into a long-term power supply regardless of actual demand. Having a meaningfully large energy load is also important, because transactions generally take months, not weeks, to complete, and require substantial devotion of a company’s staff and the alignment of varying internal constituencies to sign off on the deal.

## **3. Breaking Up: Leaving Your Utility for a New Supplier**

On-site solar transactions reduce a company’s need for utility-provided power, but do not entirely substitute for the local utility’s service.

An alternative that does take the local utility out of a company’s supply picture is the use of a competitive service provider or energy service provider (ESP). In certain parts of the U.S.—e.g., established markets along the Atlantic coast and in the industrial Midwest—the energy market is deregulated to the extent that

private, nonutility entities may use the transmission and distribution grids to supply electricity directly to retail customers.

Such customers enter into an energy supply agreement (ESA) with the ESP for the customer's entire electric supply. The ESA is a fairly standardized legal document, so contracting with an ESP is often quick and inexpensive. The customer gets to tailor an energy product to their particular needs, including the purchase of renewable energy. ESAs also offer flexibility to negotiate pricing terms and structure, risk allocation and the term of years. These elements of flexibility are greater than would be available from the local utility, which offers a single "tariff" rate to all similarly situated customers. As with on-site solar, the opportunity also exists for larger corporate customers to create competition among ESPs.

ESAs are ideal for companies with medium to large loads located in deregulated markets, and are an excellent way for these companies to dip their toes in the deep end of the energy transaction pool. ESAs are not available in many parts of the country. California, for example, experienced limited deregulation and authorized direct access in 1998, but then suspended the program in 2001 and direct access remains limited to customer meters that were approved during that very limited window. Although an ESP customer does depart from the local utility's load, the customer still relies on the utility's distribution system and still gets a monthly bill for transmission and distribution service.

#### **4. Getting Back Together: Utility Green Tariff Programs**

The increasing competitive pressure created by ESPs and on-site solar providers has driven some utilities to establish "green tariff" programs. These programs expand the traditional, one-size-fits-all utility service and allow customers to select a mix of renewable energy, and even in some cases designate individual renewable energy-generating projects. Major utilities like Dominion and Sierra Pacific Power have established green tariffs for large customers. In 2013, the California Legislature approved SB 43, requiring utilities to offer customers the option to subscribe to purchase up to a total of 600 MW of renewable energy under a "green tariff shared renewables program."

Utility green tariffs potentially allow a large number of customers to access renewable energy, consistent with corporate sustainability goals and with strong corporate branding, in a fast and easy transaction with low internal costs. Like ESAs, however, green tariff programs remain limited and are not available in many regions of the country; they are not currently available for a 15 or 20-year term; and they do not involve the customer in a direct relationship with the renewable energy project.

#### **5. Going Virtual: Synthetic PPAs**

Microsoft and a handful of other corporate buyers have stepped beyond the limits of ESAs and green tariffs to explore so-called "synthetic" or virtual PPAs. A synthetic PPA is a long-term contract in which the buyer contracts directly with the renewable energy generator and gets RECs directly from the generator, but does not take physical delivery of power. As such, synthetic PPAs are financial hedging instruments, such as price swaps, onto which an REC sale is added.

One common hedge used in this context is the contract for differences. In this type of agreement, a wind project owner sells RECs to the buyer and sells "brown" power into the market. The buyer takes the RECs and purchases brown power from the market to serve its load, and the buyer and seller agree on a means of allocating the risk of market price variations. The parties might set a "strike" price and then agree the buyer will pay the seller if the market price is below the strike price, and vice versa if the market price is above the strike price. Assuming the strike price is set at a level that works for the seller's financial model, the buyer's commitment allows the seller to finance the project because the seller will be paid the floor price for all power produced throughout the term.

Synthetic PPAs provide the buyer with real, long-term price security for both power and RECs. As such, they involve increased complexity and transaction cost, and also add a new layer of regulatory oversight (since the buyer and seller are engaging in a hedge or swap). Perhaps due to these issues, this structure is still emerging and mainly contemplated by larger companies with seven- or eight-figure power bills.

## The Bottom Line

Fortune 1000 companies are placing greater strategic value on renewable energy and energy generally, and are moving toward more sophisticated approaches and more complex transactions. In-house counsel can expect to field frequent questions about the topics discussed in this article. Going beyond REC purchases to consider the other options discussed above will be particularly relevant for companies with a combination of the following factors: higher energy use, greater interest in long-term energy security, and price control and aggressive corporate sustainability policies. Smaller companies will look most closely at on-site solar because it provides a long-term cost savings with maximum “wow” factor, is available in many regions of the country, and does not pose an overly complex or costly transaction process. Companies with energy needs beyond those easily supplied by on-site solar will be more drawn to the synthetic PPA model or, in markets where available, competitive ESAs and utility green tariffs.

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