

## Corporate Energy Sourcing: A New Engine For Renewables

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Over the past several months, a number of major corporations have announced renewable energy deals or have made commitments to procure 100 percent of their electric energy requirements from renewable sources. However, none of these corporations are traditional energy companies — instead, these deals are part of a trend in which companies across all industries are taking a greater role in controlling the characteristics and cost of their energy supply.

According to the Business Renewables Center, roughly 10 percent of all utility-scale solar power purchase agreements (PPAs) in 2014 were signed by corporate off-takers, and approximately 25 percent of such PPAs have been signed by corporate buyers so far in 2015. To achieve what are often ambitious renewable energy procurement targets, these and other companies will need to continue to purchase significant amounts of renewable energy. As a result of these trends, some sources predict that corporations will drive more renewables development than state renewable portfolio standard (RPS) programs in the next five years. This article will summarize the tools available to corporations that want to procure renewable energy and to developers who want to sell to corporate end users.

In the past, corporations often purchased unbundled renewable energy credits (RECs) to achieve procurement goals, but unbundled REC purchases are less favored in today's market. For example, some companies take the view that an effective renewable procurement strategy must produce "additionality," which means directly causing a new renewable project to be built or indirectly increasing market demand so as to incentivize investment in renewable energy. These companies also want to remove obstacles to the growth of renewables by entering into long-term contracts that enable project financing. Purchase agreements for unbundled RECs may not achieve these objectives.[1]

Corporate off-takers also install or purchase energy from on-site renewable energy projects, and these

projects have been a significant source of renewable energy for corporate end users over the past several years. However, on-site projects may be of limited utility for large, 24/7 loads such as a data center, and there may not be enough space at the company's site to build a renewable energy project big enough to serve the load. The load may also be located in an area that is not optimal for the renewable resource involved, in which case it may make more sense to purchase the renewable energy from a better situated off-site facility.[2]

Another option is to purchase energy under green tariffs offered by regulated utilities. Historically, these tariffs have involved the use of unbundled RECs purchased from existing projects. The utility providing the service will often charge a premium over its standard tariff rates, as adjusted from time to time, so the arrangement will not result in a fixed price for renewable energy. Utilities are now beginning to offer green tariff arrangements in which the utility supplies energy and RECs from its own project or a project contracted from an independent power producer in a back-to-back transaction. The tariff may lock in a fixed price for electricity and RECs and may result in the construction of a new renewable energy project. However, green tariffs are at this point available only from certain utilities in the United States and may be of limited assistance to corporations seeking to buy renewable energy.

Recognizing the limitation of REC purchase agreements, on-site project agreements and green tariffs, corporate buyers may decide to enter into a power purchase agreement with the owner of an off-site renewable energy project. Off-site renewable energy PPAs are structured as either "physical" or "virtual" transactions. A corporate buyer may choose a physical PPA when: (1) the buyer has a discrete load, such as a data center, that it wants to serve with renewable energy; and (2) it can use retail direct access to deliver the energy to the load.

In this case, the corporate buyer or a designated market participant will take title to the energy that the project generates. The energy would then be transmitted to a delivery point on the system of buyer's local utility and delivered to buyer's load by the utility. The delivered price of the renewable energy would be a function of the contract price, the cost of transmission across the grid and the cost of moving the electricity over the local utility's distribution system. If the buyer wishes to participate in the wholesale market, it will need to obtain power marketing authority from the Federal Energy Regulatory Commission; otherwise, it may engage a third-party contractor to serve as the market participant. Physical PPAs are physical, forward contracts that are usually not subject to the Dodd-Frank Act's reporting requirements. However, if the PPA contains features such as price optionality, a buyer right to require the project to curtail output, or an option to settle financially, it may be deemed a swap subject to Dodd-Frank regulation unless the option satisfies a seven-factor embedded volumetric optionality test.

Although a number of corporations continue to use physical PPAs, virtual PPAs (VPPAs), which are also known as synthetic PPAs, are being deployed more frequently. A corporate purchaser may use a VPPA when: (1) it has a distributed load, such as scattered retail outlets; (2) open access is not available to the retail load(s), which means that the load(s) can receive energy only from an incumbent utility; or (3) when projects that could be contracted with a physical PPA are not cost-effective sources of renewable energy compared to those reachable by a VPPA. Even with a virtual PPA, however, some buyers may require that the project be located in the same market as the load so that the virtual energy is generated and used in the same region.

A VPPA is a "contract for differences," the terms of which may be embedded in the VPPA, set out in a separate long-form swap agreement, or documented as a transaction under an ISDA Master Agreement. The VPPA is a swap transaction that is subject to Dodd-Frank reporting requirements. In such a hedge

arrangement, the buyer will purchase the project's output at a "fixed price" and keep all of the associated RECs. The remaining "brown power" will be sold into the market and a "floating price" will be paid by the seller or an energy manager. The floating price generally consists of the proceeds of market sales of the project's output net of any energy manager fees, if applicable. The floating price will be subtracted from the fixed price to produce a settlement amount, which is reconciled monthly — if the floating price exceeds the fixed price, seller will pay buyer; if market prices are less than the fixed price, buyer will pay seller. The buyer continues to take and pay for energy from its local utility. At the end of the day, the buyer ends up with a long-term contract that will supply it with RECs from an additional renewable energy project which, ideally, will be located in the same area as the load to be served. The fixed price for renewable energy will probably be higher than the floating price at the beginning of the VPPA, and the delta will in effect represent the amount that buyer is paying for RECs. However, the buyer may expect the market price to exceed the fixed price after a certain point in the term, at which point the VPPA would begin to make money for the corporate buyer.

A VPPA depends on the availability of a floating price, so it is typically used only to purchase output from a project located in an organized market, such as an independent system operator or a regional transmission organization. Because such markets sometimes send negative price signals, the buyer does not want to be obligated to settle when the floating price is negative (e.g., the VPPA might allow the owner of a wind project to deliver energy into a negative price to capture the production tax credit, but the buyer would not be obligated to bear the cost of the negative price). Similarly, buyer will want the floating price to be determined at a market hub rather than at a local marginal price (LMP) node so that the floating price is not set in a more limited, less liquid market that is subject to congestion risk. Sellers will, of course, be concerned about the basis risk between the LMP node and the hub.

VPPAs often allow the project owner to sell electricity to capture the floating price, but some corporate owners will require the engagement of an energy manager for this purpose. If an energy management agreement is used, the energy manager will agree to use commercially reasonable efforts to market the project's products at the highest price reasonably available. Depending on opportunities available in the market, the energy manager may sell energy into the market as a price taker or to individual counterparties on a negotiated bilateral basis. To align the interest of the energy manager with the corporate buyer, the energy manager is compensated in part based on its performance against agreed-upon targets.

Before committing to particular terms and conditions, the corporate buyer should consider carefully whether it can ultimately say what it wants to say about the transaction. For example, a company may have an announced goal of serving 100 percent of its load with renewable energy. It may decide to buy the output of an on-site solar project and issue a press release stating that this transaction counts toward its "renewable energy" procurement target. But if the PPA allows the developer to retain and market the facility's RECs, or if the buyer immediately resells the RECs, that announcement may raise an issue under the Federal Trade Commission's *Green Guides*, which provide that the right to claim environmental benefits (such as the renewable characteristics of the energy) resides in the RECs. The FTC's guidance is consistent with the requirements for Green-e Energy certification, which may treat such a statement as confusing or possibly as a "double-claim" that could infringe on the REC holder's property rights and make the RECs ineligible for Green-e Energy certification. Some PPAs and VPPAs also contemplate "REC arbitrage," in which the RECs produced by the project are replaced with cheaper, substitute RECs from a different source. For example, the developer may retain the solar RECs (SRECs) in a market with a high SREC price while procuring substitute RECs from a source acceptable to the buyer. This allows the seller to reduce the delivered price of the product, but the buyer will want to consider carefully how it publicly describes such an arrangement in relation to its corporate goals.

Accounting issues also play a prominent role in corporate procurement transactions. For example, attorneys familiar with renewable energy PPAs may assume that a buyer will want an output guarantee to incentivize the seller's performance. However, in the corporate procurement context, an output guarantee will represent a "notional value" that will trigger derivative accounting, an outcome that corporate buyers prefer to avoid. The commonly used alternative is a mechanical availability guarantee that calculates liquidated damages on a percentage of shortfall basis rather than on a per megawatt-hour basis, since the latter could be deemed to assign a notional value that requires derivative accounting.

The PPA may also constitute a lease for accounting purposes if the buyer purchases more than 90 percent of the facility's output. In transactions where that occurs, the buyer will need to consider whether the lease is an operating lease or a capital lease. The lease may be accounted for as a capital lease if the term of the PPA exceeds 75 percent of the facility's useful life.

## **Conclusion**

Corporate procurement of renewable energy will be an important driver of renewable energy development over the next several years. As more and more corporations commit to zero carbon footprints, 100 percent renewable energy procurement and other sustainability goals, the procurement structures briefly described in this article will come into more frequent use.

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[1] See generally *Google's Green PPAs: What, How, and Why* (Rev 3 Sept. 17, 2013).

[2] See generally *id.* at 2.