



ACCOUNTING PRIMER FOR C&I RENEWABLE ENERGY BUYERS

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REsurety

CohnReznick

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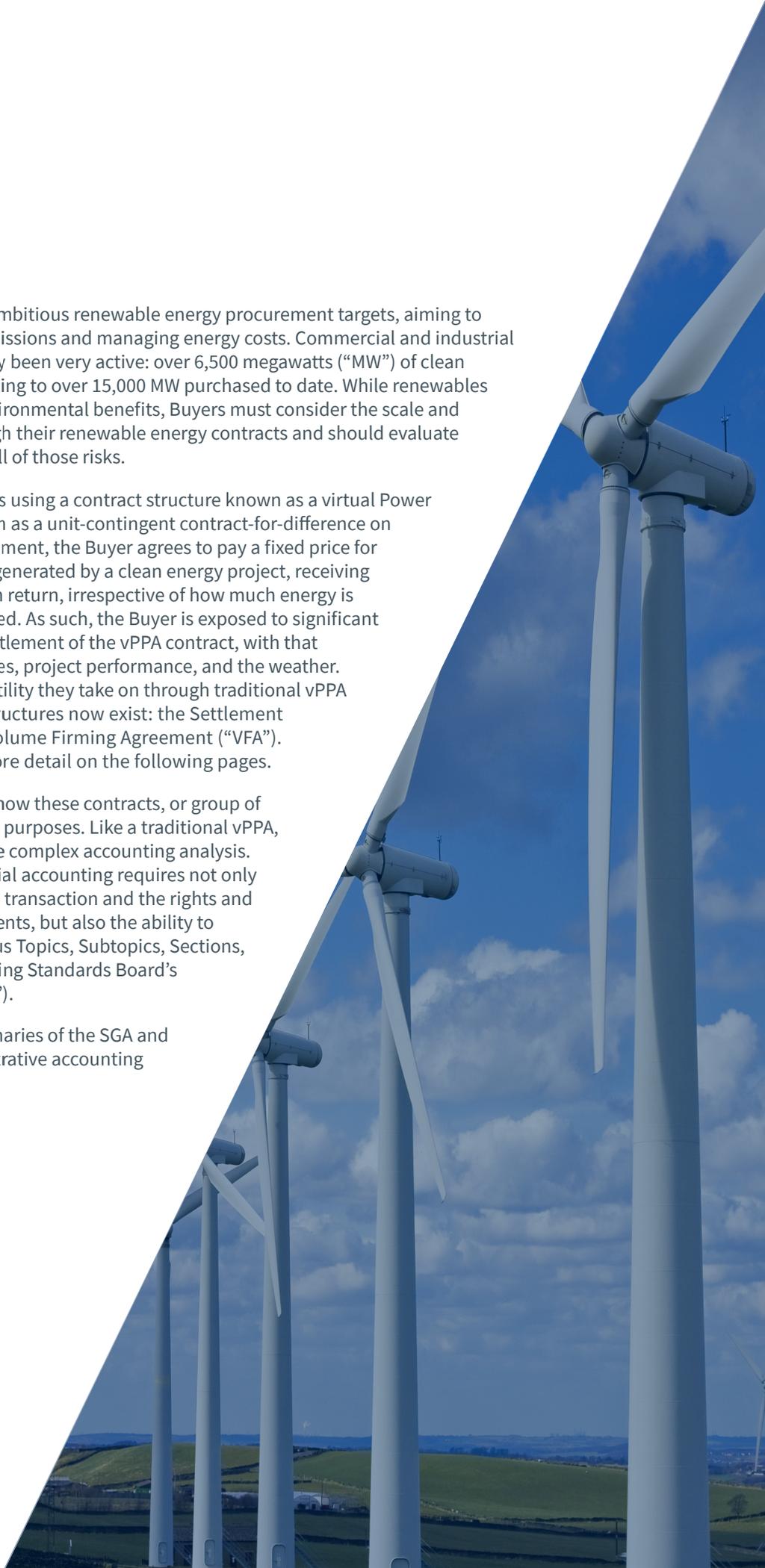
INTRODUCTION

Companies across the globe are setting ambitious renewable energy procurement targets, aiming to achieve the dual mandate of reducing emissions and managing energy costs. Commercial and industrial buyers (“Buyers”) in the U.S. have recently been very active: over 6,500 megawatts (“MW”) of clean energy were purchased in 2018, contributing to over 15,000 MW purchased to date. While renewables provide a multitude of economic and environmental benefits, Buyers must consider the scale and complexity of risks being assumed through their renewable energy contracts and should evaluate solutions to efficiently manage some or all of those risks.

Most Buyers make clean energy purchases using a contract structure known as a virtual Power Purchase Agreement (“vPPA”), also known as a unit-contingent contract-for-difference on energy price. Through this financial agreement, the Buyer agrees to pay a fixed price for every megawatt hour (“MWh”) of energy generated by a clean energy project, receiving the variable market price of that energy in return, irrespective of how much energy is generated or when that energy is generated. As such, the Buyer is exposed to significant financial volatility associated with the settlement of the vPPA contract, with that volatility being driven by commodity prices, project performance, and the weather. To help Buyers manage the financial volatility they take on through traditional vPPA contracts, two supplemental contract structures now exist: the Settlement Guarantee Agreement (“SGA”) and the Volume Firming Agreement (“VFA”). Each of these contracts is explored in more detail on the following pages.

An important consideration for Buyers is how these contracts, or group of contracts, will be assessed for accounting purposes. Like a traditional vPPA, contracts like the SGA and VFA can require complex accounting analysis. The application of the appropriate financial accounting requires not only a clear understanding of the nature of the transaction and the rights and obligations of the parties to such agreements, but also the ability to appropriately navigate through the various Topics, Subtopics, Sections, and Subsections of the Financial Accounting Standards Board’s Accounting Standards Codification (“ASC”).

On the following pages, we provide summaries of the SGA and VFA contract structures as well as an illustrative accounting analysis for both products.





SETTLEMENT GUARANTEE AGREEMENT

Many Buyers have long-term exposure to energy costs but are protected from volatility in the near- to medium-term through fixed-price retail or utility contracts. For these Buyers, a traditional vPPA provides a long-term economic hedge on escalating energy costs, but for the initial period where the Buyer doesn't have exposure to energy prices, the vPPA is effectively a speculative position on the as-generated value of electricity – a highly volatile exposure to hold. An SGA enables Buyers to mitigate this exposure by transferring future, variable vPPA settlements to an Insurer in exchange for a known fixed payment (which can be positive or negative, depending on the SGA seller's expected future value of the vPPA).

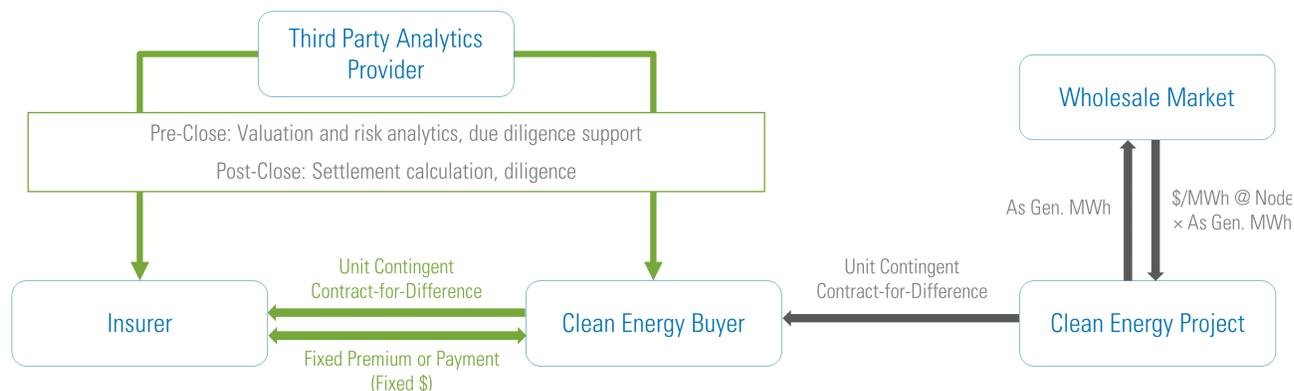
SGA contracts can be offered for terms of up to ten years, and typically settle quarterly. For each settlement period, a third-party agent (such as RESurety) calculates a cash settlement amount equal to the known fixed payment

minus the variable vPPA settlement (the "SGA Settlement"). As a result, the SGA Settlement and vPPA settlement combine to equal the known fixed payment. The SGA mechanics are illustrated by the green arrows in Figure 1.

It should be noted that SGA contracts are typically expected to settle on Proxy Generation, rather than the actual generation of the project. Proxy Generation is a measure of what a project should have produced in any given hour had the project performed at its expected efficiency. The use of Proxy Generation eliminates the Insurer's financial exposure to the operational decisions that the project directly or indirectly controls.

For further detail on Proxy Generation, including how Buyers are using it as a tool to reduce risks in vPPA contracts, see the following whitepaper written by Orrick, Microsoft, and RESurety.¹

Figure 1: Settlement Guarantee Agreement



Case Study Example*

A Buyer owns a data center in Texas. In 2016, the Buyer entered into an energy supply agreement with its local utility, providing a fixed cost of energy through 2024. In 2018, the Buyer entered into a 12-year vPPA to purchase the electricity and renewable energy credits ("REC") from a 100 MW Texas wind project. The vPPA will settle at ERCOT North with a fixed price of \$15/MWh beginning January 1, 2020. In 2019, the Buyer enters into a 5-year SGA with an Insurer, securing the Buyer a \$400,000 annual net settlement during the 5-year term of the SGA.

*The values used in the above case study are provided for illustrative purposes only and do not reflect any specific project or contract and should not be relied upon as pricing guidance in any respect.

¹https://orrick.blob.core.windows.net/orrick-cdn/Proxy_Generation_PPAs.pdf.



VOLUME FIRING AGREEMENT

Many Buyers' energy consumption profiles are predictable and stable, while the generation profile of a clean energy project is not. This variability limits the ability of a vPPA to provide an effective economic hedge on the cost of energy consumption due to the hourly mismatch of generation and consumption. A VFA, in combination with a vPPA, secures a fixed cost for a fixed volume and shape of power, transferring the volume and shape risk inherent to a traditional vPPA from the Buyer to an Insurer.²

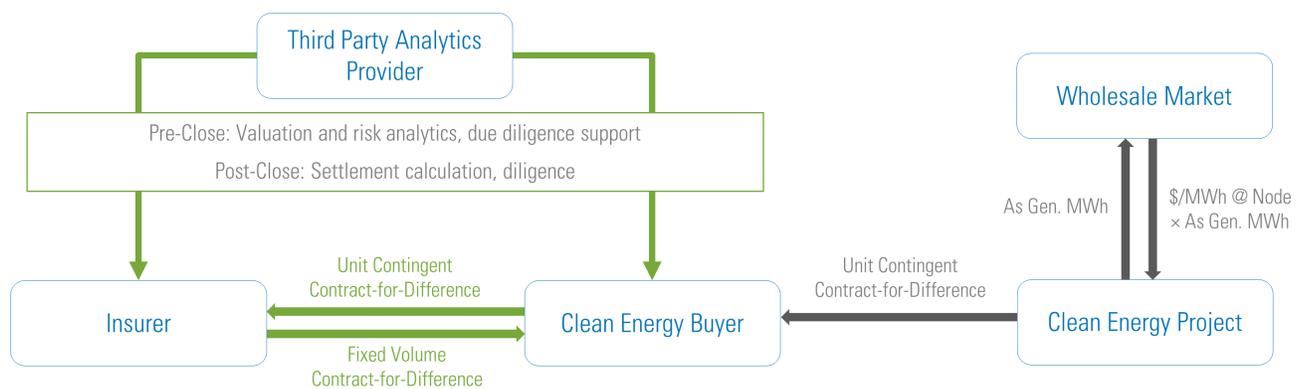
Settlement occurs throughout the VFA contract term, typically on a quarterly basis. For each settlement period, a third-party agent (such as REsurety) calculates a settlement amount equal to the difference between the vPPA settlement amount and the settlement amount of a fixed quantity energy price hedge (see Figure 2). The resulting VFA settlement amount, when combined with the vPPA settlement amount, replicates what the settlement would have been had the Buyer held a fixed quantity and volume hedge on energy price. Similar to the SGA, the calculation of the VFA settlement is based on Proxy Generation.

Case Study Example*

A Buyer owns a data center in Texas with a 50 MW around-the-clock energy demand. The Buyer purchases physical energy to serve that load on the wholesale market. In 2018, the Buyer entered into a 10-year vPPA to purchase the electricity and RECs from a 100 MW Texas wind project. The vPPA will settle at ERCOT North with a fixed price of \$15/MWh beginning January 1, 2020. In 2019, the Buyer executes a 10-year VFA with an Insurer with an hourly shape of 50 MW and a VFA price of \$6/MWh. As a result of the vPPA and the VFA, the Buyer has financially secured 50 MW of around-the-clock power for a price of \$21/MWh for the period 2020-2029.

**The values used in the above case study are provided for illustrative purposes only and do not reflect any specific project or contract and should not be relied upon as pricing guidance in any respect.*

Figure 2: Volume Firing Agreement



²Volume risk is the risk that total generation during a given month, quarter or year will exceed or fall short of the expected amount. Shape risk is the risk that the hourly relationship between generation and price will differ from expected. For additional details, please see <https://rmi.org/insight/corporate-purchasers-guide-risk-mitigation/>.



COHNREZNICK ACCOUNTING ANALYSIS

The accounting for commodity contracts like the SGA and VFA typically follows a certain framework requiring an assessment of the unit of account. Once the units of account are determined, the contract is first evaluated under either ASC 840 or ASC 842, *Leases* to determine if the contract contains a lease.³ If the contract does not

contain a lease, the contract is then evaluated under ASC 815, *Derivatives and Hedging*. If the contract is neither a lease nor a derivative (or exempted from derivative accounting due to the application of a scope exception), companies typically apply executory contract accounting (i.e., accrual accounting).

#1: What is the appropriate unit of account?

A commodity contract will contain at least one unit of account (e.g., power, RECs). Note that in almost all instances, the SGA and the VFA are legally separate agreements from vPPAs and are entered into with separate and unrelated counterparties to that of the vPPA. The vPPA counterparty will be a clean energy project owner while the SGA/VFA counterparty will be an Insurer. Accordingly, such contracts should be separately evaluated under the accounting framework described above (i.e., will not be subjected to the concept of combining contracts for financial accounting purposes that exists for separate legal contracts entered into with same counterparty in contemplation of one another).



CohnReznick Perspective

Both the SGA and the VFA contain one unit of account. For example, the SGA unit of account may be identified as the transfer of future, variable vPPA settlements via the methodology described above. In comparison, other contracts may contain more than one unit of account. For instance, it is not uncommon for a vPPA to provide the rights to both energy and RECs from a facility. Each unit of account should be separately evaluated under the framework. The assessment of the vPPA is a separate accounting assessment from the assessment of the SGA or VFA.

#2: Does the contract contain a lease?

Under ASC 842, a contract is or contains a lease if the contract conveys the right to control the use of identified property, plant, or equipment for a period of time in exchange for consideration.⁴ Control is in part dictated by whether the counterparty has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use.



CohnReznick Perspective

The key is whether an SGA or a VFA contract is designed with the intended purpose to convey control of the project to the Buyer. Both the SGA and VFA will explicitly identify the clean energy project with which the Buyer has signed a vPPA. However, VFA and SGA contracts are between an Insurer and the Buyer, not the project itself, and settlements occur based on Proxy Generation, which explicitly separates the settlement amounts from the physical operations of the project. As such, the VFA and SGA may not be conveying control of the clean energy project to the Buyer. The vPPA will need to be similarly assessed to determine whether control of the clean energy project was conveyed to the Buyer through that contract.

³Accounting Standards Update (“ASU”) 2016-02, Leases (Topic 842) is the new leasing accounting standard, is effective for public companies for annual reporting periods beginning after December 15, 2018, and private companies beginning after December 15, 2019, with early adoption permitted. The Financial Accounting Standards Board (“FASB”) is in the process of extending the required adoption date for private companies by one year to those periods after December 15, 2020. Topic 842 introduces a new leasing model that effectively brings most leases onto the balance sheet.

⁴Currently, ASC 840 is effective for private companies. Refer to FN3.



#3: Does the contract contain a derivative?

The guidance in ASC 815 specifies the following characteristics must be present to account for a contract as a derivative instrument: 1) a notional and an underlying amount; 2) no initial net investment; 3) a provision for net settlement.

For both the SGA and VFA, the Buyer should first evaluate whether an explicitly stated notional amount exists. If there is not an explicitly stated notional, as is often the case when evaluating these contracts, a Buyer should review the settlement or default provisions, as these may indicate an implicit notional exists. The following are key considerations when evaluating whether a contract may include an implicit notional:

- Does a specified minimum or maximum quantity exist?
- Is there an explicit mechanism for calculating a determinable amount to support the Buyer's needs?
- Does the contract have settlement or other default provisions that specify quantities?
- Does the contract include other forms of performance assurance that support calculation of a notional?

An underlying amount (or payment provision) is a variable whose movements cause the fair value, or the future cash flows of the derivative, to fluctuate. ASC 815-10-15-88 provides examples of an underlying in a contract including “a commodity price or a commodity price index.” Accounting guidance further clarifies in ASC 815-10-15-89 that “an underlying may be any variable whose changes are observable or otherwise objectively verifiable” and that “an underlying may be a price or rate of an asset or liability but is not the asset or liability itself.”

The second criterion that needs to be present for an SGA or VFA to meet the definition of a derivative is that it must have little or no initial net investment. The third criterion that must exist is a means for net settlement of the contract through either: 1) its contract terms; 2) a market mechanism; or 3) delivery of an asset that is readily convertible to cash.

CohnReznick Perspective

With respect to the first criterion, products like the SGA and VFA typically contain at least one underlying amount as these products were designed to manage risks (such as market energy price, resource volume, resource shape, etc.) associated with offtake arrangements. However, the contract would need to contain both a notional *and* an underlying amount to account as a derivative instrument.

Accordingly, the determination as to whether these financial products would meet the requirements of derivative accounting will primarily rest on the evaluation as to whether they include a notional. SGA contracts do not typically include an explicit notional as may be seen in other products such as financial commodity hedges. Accordingly, the assessment should be more focused on whether the contract implicitly includes a notional through the terms of the agreement. The determination of an implicit notional can be highly complex and will require a careful assessment of the key considerations noted above in conjunction with the company's accounting policies and past practices for similar commodity contracts.



Similarly, VFAs do not typically include an explicit notional. Although a specific volume and shape is defined in VFA contracts, there are variables used to determine the volume of the underlying that are not known until the end of the settlement period. One of the key accounting judgments the Buyer should evaluate is whether the cash settlement amount provides for an implicit notional within the VFA. The settlement formula may not meet the requirements of a notional as there are variables that are not known until each settlement period occurs. Therefore, a careful assessment of the key considerations noted above in conjunction with the company's accounting policies and past practices for any similar commodity contracts should be undertaken.

With respect to the second criterion, SGAs and VFAs generally do not require any initial payment or investment in order to enter into the contract. Rather, it is entered into at market terms. A Buyer should carefully consider the nature and timing of payments made, as initial payments made as a form of settlement under the contract should be viewed as such, as opposed to an initial investment.

With respect to the third criterion, the SGA and VFA are cash-settled financial products which would meet the net settlement guidance.

Additional Notes

If the SGA or VFA is not accounted for as a lease or a derivative, it is generally concluded to be an executory contract and the Buyer will need to evaluate which other Generally Accepted Accounting Principles (“GAAP”) would be applied. Additional care will need to be taken to ensure appropriate presentation and disclosures are made within the company's financial statements.

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