Why corporate renewable energy buyers should consider hedge agreements over PPAs
BY DAN LYNCH AND YAW T. TEMENG | 12.9.19

A predictable revenue stream from a creditworthy “offtaker” is the standard approach to finance an energy project. Traditionally, developers sought a long-term, fixed price power purchase agreement (PPA) with a utility offtaker to meet this financeability requirement, but such agreements have become increasingly challenging to secure. Hedge agreements, in a number of forms, have emerged as an alternative offtake structure for renewable energy project developers to obtain financing. The purpose of this article is to provide a basic overview of a hedge agreement, focusing on renewable energy hedge agreements.

**Purpose of a hedge**
A hedge agreement is a contractual device used to lock in a predictable, per unit price against commodity price fluctuations. This predictable revenue stream provides assurance to project lenders (and tax equity providers) that the project will be able to satisfy the project company’s debt service obligations and financial return targets. Although a hedge agreement transfers price risk away from the project owner, volumetric (or production) risk often remains with the project owner.

A basic hedge agreement is between a project owner and a financial institution or corporation (the “hedge counterparty”) where the project owner and hedge counterparty agree that the project owner will receive, for a pre-determined amount of power generated by the project owner’s project, a stable, fixed per unit price for such power. This is accomplished by the project owner and hedge counterparty financially “settling” the variable market price for such power against such stable, fixed per unit price. More specifically, the hedge counterparty agrees to pay the project owner if the price received from the sale of power is below the stable, fixed per unit price. Effectively, a hedge agreement provides the project owner with a degree of insurance, for the hedged amount, against price risk. The hedge counterparty receives both the benefit of a commodity price increase and bears the burden of a commodity price decrease by guaranteeing the project owner will receive (through such financial settlements) a stable and fixed per unit price for an agreed upon amount of power generated by a project.

**Different types of hedge agreements**
The “basic” hedge, described above, is a financially settled hedge. The hedge counterparty looks at the commodity price for an agreed upon amount of power, at an agreed upon time and settles the hedge through either a payment from or to the project owner. A project owner sells its generated power into the open market, while hedging against price fluctuations from such open market (merchant) sales through its hedge agreement. Financially settled hedge agreements are referred to by several names, such as “virtual PPA,” “synthetic PPA” or “contract for differences”.

Another type of hedge agreement is a physically settled hedge agreement. Under a physically settled hedge agreement, power from a project is “physically” delivered to the hedge counterparty. This physical delivery is achieved through (i) a merchant sale at the project’s point of interconnection and (ii) a simultaneous transaction at the agreed upon point of delivery involving (1) purchase of the power by the project owner at the delivery point, (2) transfer (or “delivery”) of such power by the project owner to the hedge counterparty at the delivery point and (3) purchase by the hedge counterparty of such power. The hedge counterparty pays the project owner the agreed upon per unit price for the commodity delivered at the delivery point. This physical transaction typically occurs at a liquid trading hub for such commodity. Physically settled hedge transactions are most commonly used by hedge counterparties that are able to resell the power delivered to them from the project owner. For companies without such resale capability, financially settled hedge arrangements are ideal since there is no need on the part of the hedge counterparty to offload the physical delivery of power.

Financially settled hedge agreements have become common for corporate buyers who have turned to renewable power to meet their sustainability goals while simultaneously providing a hedged position to their own power demand. The arrangement typically comprises: (a) a financially-settled hedge and (b) the purchase of the renewable energy credits ("RECs") from the same project associated with the hedge.

More specifically, the project owner sells its power into the open market and the project owner receives the prevailing market price for that power. At the end of a specified settlement period (usually one month), one party calculates the difference between the average market price received by the project owner and the agreed upon price pursuant to the hedge agreement. The result of such difference is multiplied by the quantity of power subject to the hedge agreement, which determines the amount owed. If the average market price exceeds the price agreed to in the hedge agreement, then the project owner pays such amount to the hedge counterparty. Conversely, if the price for power agreed to in the hedge agreement exceeds the average market price, then the hedge counterparty will pay such amount to the project owner.

Another type of hedge agreement is a proxy revenue swap. Proxy revenue swaps are a relatively new financial structure designed to mitigate certain operating risks that impact a project owners’ ability to secure a predictable revenue stream. Similar to other hedge arrangements, a proxy revenue swap transfers price risk to the hedge counterparty. In addition, a proxy revenue swap is structured to address some components of volumetric risk (that is, the amount of power produced by the project). There is a cost premium to the project owner for the transfer of such volumetric risk to the hedge counterparty. The proxy revenue swap calculates a proxy for the amount of power produced by the project (or, how much the project “should have” produced), rather than basing the hedge on the project’s actual production of power.

**Only in certain markets**
It is important to note that hedge agreements require a level of market liquidity (and a regulatory structure) that permits the project company to sell its power directly into the grid for the prevailing wholesale market price. This is typically possible only in organized markets such as a regional transmission organization (RTO) or an independent system operator (ISO), which serve as third-party independent operators of the transmission system. Additionally, because the economics of financially settled hedge agreements rely on the difference between the variable market price and the fixed hedge agreement price, it is important to have the transparency of an RTO or ISO market to determine an agreed upon market price.

**Simplicity makes hedge agreements attractive**
Lastly, from a commercial expediency standpoint, the use of hedge documentation can have some significant advantages over a traditional PPA. Power purchase agreements are often very lengthy documents that vary widely in form and substance – and as such, can lead to protracted negotiations and review. Hedge agreements that are governed by an International Swaps and Derivatives Association (ISDA) or Edison Electric Institute (EEI) form contract are standardized and are comparatively simple to document. Thus, once parties have reached an understanding on the commercial arrangement, documentation can be finalized and closing can typically occur more quickly than without use of the standard, form contracts.