

## PPA PAYMENT STRUCTURES: TAKE-OR-PAY APPROACH V TAKE-AND-PAY APPROACH

The Government of Kenya recently released an official gazette dated the 29th of March, 2021, appointing a Taskforce for the review of Power Purchase Agreements (PPAs) entered into by the Kenya Power and Lighting Company Limited (KPLC) and Independent Power Producers (IPPs). One of the Terms of reference of the Taskforce is to review the Take-or-Pay (TOP) approach applied under the PPA structure and recommend a viable Pay-when-Taken/Take-and-Pay (TAP) (merchant plant) approach, or any other viable payment structure, for use in independent power generation projects.

The Government of Ghana also recently released its policy intention of converting TOP obligations in PPAs into TAP obligations.

This policy brief seeks to highlight policy approaches that may be adopted within various recommended payment structures for independent power generation projects in general.

Take-or-Pay clauses provide sellers within the PPA with assured revenue streams for adequate return on capital investments because as the name implies

the buyer is contractually obliged to pay for contracted volumes at the contract price whether or not taken based on the agreed timelines within the PPA, thus bearing the volume risk. They also make energy projects bankable and give comfort to lenders that provide limited recourse financing for projects as they evince certainty of project cashflows.

Typically, TOP quantities can be adjusted based on several factors such as- (i) where the quality specifications were unmet, (ii) where the seller fails to make the contracted quantities available for delivery, (iii) where the buyer is unable to take contracted quantities as a result of the occurrence of a force majeure event(s). In such circumstances, the buyer is usually allowed to receive a 'make-up quantity' at an agreed time period by the parties. However, these clauses may be viewed as being impractical in circumstances where a buyer who had originally signed up for contracted volumes becomes burdened with excess generation capacity and no longer requires originally contracted capacity owing to debts that accrue for power that is not evacuated onto the grid (i.e., stranded capacity).

For example, in Kenya, capacity is estimated at 2,700 MW and peak demand at around 1,400 MW. Ghana on the other hand has an estimated generation capacity at 4,889 MW and peak demand at 2,525 MW as of 2019 and its state utility (Electricity Company of Ghana) is paying approximately 2.5 billion cedis (US\$ 454 million) per year for unevacuated power to the grid. The buyer in this instance under a typical TOP scenario can elect not to take the TOP Quantity in a given year but will however be required to pay the corresponding TOP payment at the end of the year.

Based on the above, the push for 'Take-and-Pay' (TAP) clauses in PPA's have become rampant, especially for 'capacity long'<sup>1</sup> buyers who are typically state entities/utilities in African power markets. The TAP clause also known as 'merchant offtake' is a variant of the TOP clause as the buyer is only committed to purchase output if produced. The

TAP clause obligates the buyer to take and pay for the minimum contracted quantity based on the contract price on a firm off-take basis, with consequences for breach where there is a default by the buyer for failure to take the minimum contract quantity within the agreed period of time.

<sup>1</sup>Where available generation capacity is in excess of demand. On the other hand, being 'capacity short' is where available generation capacity is unable to meet demand.

The buyer's payment obligation is not unconditional as is the case with a TOP clause, thus reducing the cost to state utility buyers for the provision of power to end-users reflected in the tariffs. In addition, unlike the TOP clause, contract quantities cannot be adjusted and there are no corresponding make-up rights, the seller is therefore required to put in place loss mitigation strategies to claim damages effectively, for example, where a buyer does not take the minimum contracted capacity, the seller has the

option to resell and set-off the resale proceeds against the damage(s) claim. The key difference between the TOP and TAP structure is the timing of when payments must be made to the seller and the seller's specific remedy for quantities not taken by the buyer. The TAP structure offers less guarantee than the TOP structure and transfers risks to IPPs, thus impacting the economic structures of projects from a project financing/ bankability perspective and also from a contracting standpoint.

**To effectively ensure guarantee of cashflow, which is key for project bankability and investment attractiveness, several recommended options can be considered to balance the interests of stakeholders in a PPA.**

- Renegotiation of the terms of the PPA from a TOP to a TAP structure which will allow for real time payment obligations following defaults by buyers, thus providing sellers with a regular and timely cashflow, unlike annual TOP liabilities upon default by buyers. Additionally, based on the renegotiated structure, an arrangement can be put in place that allows power from excess capacity generated to be sold on a cross-border basis to capacity short countries, in order to compensate IPPs and generators for capacity that would have otherwise been sold on a contracted TOP basis, thus covering their fixed costs or at least a substantial portion of the costs.
- Adoption of a 'Blended' Payment structure that allows buyers to contract on a TAP basis and sellers trade stranded capacity within the pool mechanism/spot market trading (where existent) on a merchant offtake basis or on a firm commitment basis.
- Deployment of a 'Fixed Tariff' structure under the PPA that will allow buyers pay a fixed tariff on a per unit basis for volumes off-taken. However, the risk factor with this structure is with regard to fluctuations in the price of electricity and the attendant adjustment mechanism to be adopted in the PPA. The electricity price may fluctuate to a point that is less than the power plant's capital and operating costs.
- The 'Take-or-Cancel' contract structure though very unpopular from a project financing perspective may be considered, as such a structure permits a buyer not to take its contracted quantity with sufficient advance notice given to the seller and a payment of a cancellation fee. The fee must however be sufficient to cover the seller's fixed costs. Thus, if properly structured, a TOC structure may be able to assure cash flow regularity where there are fairly limited cancellation rights, fairly long advance notice periods and a fairly

With any structure adopted, adequate payment security must be put in place and enshrined in the PPAs, to cover liabilities that would have accrued under a typical TOP structure.

Nevertheless, an appropriate balancing mechanism must be established to avoid potential system/network interruptions and grid instability, to ultimately keep the system balanced at all times. Storage solutions should be explored for grid balancing and to avoid penalties/liabilities that will accrue for power paid for but not evacuated under a TOP structure.

Retrospective changes in policy that will undermine the business model of investors and project economics should be avoided, in order not to disrupt the overall electrification and energy access agenda of national governments.

- *The Kenya Gazette Vol. CXXIII- No. 64, Nairobi, 29th March, 2021*
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