

# Bypassing Discoms

## Developers increasingly turn to third-party PPAs

Third-party power purchase agreements (PPAs) are emerging as an attractive option for renewable energy developers, particularly in states with a strong industrial base. These are a comparatively less risky proposition than those offered by the state utilities that have poor payment records or are suffering from mounting losses. Moreover, private PPAs help the developers diversify their risk and revenue profile. That said, there are regulatory challenges associated with private PPAs. These relate to grid connectivity, open access and the applicability of the renewable energy certificate (REC) mechanism. Developers, experts and other stakeholders express their views on this model and the key issues faced in opting for third-party PPAs.

**Third-party sale has emerged as a popular business model for renewable energy projects. What are the key factors driving the uptake of this model?**

### Rajesh K. Mediratta

Third-party sale is a popular business model for renewable energy projects as it generates higher revenues as compared to the feed-in tariff (FIT) model. There are payment issues with the current FIT model, and in many states the tariffs are so low that the model does not bring in sufficient revenue for developers. Further, a few states allow banking of power for third-party sale. This acts as an additional benefit of third-party sale since it allows generation and purchase of power at different times with flexibility in terms of time block and seasons. Such third-party sale is normally conducted at a price close to utilities' tariffs. The model has been most popular among generators in states where cross-subsidy surcharge (CSS) is not applicable to buyers.

### Vikalp Mundra

Under the REC mechanism, revenues are generated from two sources – sale of

power and trade of RECs. Power can be sold either at the average pooled purchase cost (APPC) or through open access to captive or third-party users. The average rate of power sale under APPC is between Rs 1.96 and Rs 3 per kWh. However, third-party power sale prices are higher, at Rs 4-Rs 4.25 per kWh, depending on the prevailing tariffs in the respective states, thereby making better business sense. We are a power-hungry and power-deficit country, and any supply of power through open access will help the distribution licensee to meet the deficit. Despite this, third-party power sales are subject to state-level permissions. As of now, third-party sales are taking place successfully only in Madhya Pradesh.

### Ajit Pandit

The third-party sale model is not new to the renewable energy sector. In fact, in 1995, the Ministry of New and Renewable Energy allowed concessional banking and wheeling policies as a measure to promote investments in the sector, followed by many state-specific policies that enabled such third-party wheeling models, particularly for the wind, biomass,

small hydel power and cogeneration segments. Following the enactment of the Electricity Act, 2003, such third-party wheeling transactions are being governed under open access regulations that were framed by several state electricity regulatory commissions (SERCs). The recent interest in the third-party business model, particularly in the solar power segment, is a result of conducive solar power policies notified by various state governments. With the increase in retail power tariffs for commercial and industrial consumers and the decline in solar power installation costs, third-party wheeling transactions have become feasible for solar power projects in many states.

### Vinay Rustagi

The third-party sale model has huge potential in India as it provides consumers access to an alternative source of clean energy and relief from the steep upfront costs of setting up a renewable energy plant. However, we are cautiously optimistic about this model as it still needs to overcome some key challenges. The market for third-party sale is being driven primarily by constraints related to grid power.



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“Third-party sale is a popular business model for renewable energy projects as it generates higher revenues as compared to the feed-in tariff model.”

**Rajesh K. Mediratta**

These include unreliable supply, escalating discom tariffs and load restrictions.

### S. Venkatachalam

Some of the factors that are driving the uptake of third-party sales among independent power producers are as follows:

- Increase in consumer awareness about open access
- Shortage of power in some states
- Commercial advantage in pricing
- Introduction of policies to reduce the carbon footprint of consumers.

Overall, this is likely to grow in the coming years, given that power costs are expected to increase gradually.

### What are the key risks faced by developers in adopting this model?

#### Rajesh K. Mediratta

The third-party sale model has been facing challenges in recent times. Since the implementation of the new deviation settlement mechanism, all utilities are trying to curb deviations and manage their power systems on a 15-minute time basis. In order to achieve this, they need to ensure the sale of power at the same time as it is being consumed to avoid any risks from imbalances (unscheduled interchange).



**Vinay Rustagi**  
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The cost of this imbalance is compelling utilities to disallow banking and wheeling of power for renewable energy generators.

The wind segment, in particular, has been faced with this challenge and wherever such a restriction has been imposed, third-party sale has reduced significantly. Another issue is the imposition of the CSS, which is not applicable to the group captive model. This makes the latter more popular than third-party sale. Further, most agreements signed by renewable energy generators lack clarity on whether the power being sold is bundled green power or grey electricity. This creates disputes among parties and results in problems related to the issuance of renewable energy certificates (RECs) to developers.

Disallowance of banking and wheeling is a major risk for developers. The few states that still allow banking and wheeling are likely to restrain the same going forward.

#### Vikalp Mundra

The REC mechanism is a market-linked model, dependent on the trade of certificates. While there is considerable need for these certificates and the regulations too are in place, due to weak enforcement of these regulations, inventories have piled up with the exchanges. With a new government in place and amendments proposed to the Electricity Act, 2003, we are hopeful that this mechanism will be de-risked.

#### Ajit Pandit

The key regulatory risk faced by developers under this model is the lack of long-term certainty and visibility in applicable open access charges. As third-party wheeling transactions are governed by open access regulations, they attract vari-



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“Making solar power sales eligible for subsidised wheeling and transmission charges, etc. will ensure effective execution of open access for third-party sale.”

**Vikalp Mundra**

ous open access charges such as transmission charges and losses, wheeling charges and losses, cross-subsidy surcharge, additional surcharge, grid support charges, imbalance charges and scheduling fees. Several SERCs have adopted a regulatory regime conducive for renewable energy-based open access transactions as a promotional measure by offering concessional open access charges or exemptions in some cases. However, open access charges are determined on a yearly basis or for a control period of three to five years. Long-term visibility with regard to applicability of concessions or exemption thereof is lacking in many cases, which results in regulatory uncertainty for third-party investors/developers to evaluate the commercial viability of these transactions. Lenders/Financial institutions are wary of funding such third-party offtake arrangements on a long-term basis.

#### Vinay Rustagi

One of the biggest risks associated with this business model is uncertainty and unpredictability of government policies related to renewable purchase obligations (RPOs), open access, etc., particularly at the state level. Another key issue is the government's reluctance to increase grid tariffs in line with increasing costs. Tariff subsidies are seriously distorting the market and becoming a challenge for third-party supply sources.

#### S. Venkatachalam

A key risk is the lack of long-term visibility, as most of the third-party contracts under open access are signed for a relatively

medium term as opposed to long-term PPAs with discoms. Other risks relate to the stringent implementation of scheduling and the availability-based tariff regime, high cross-subsidy and transmission charges, and the resistance of discoms to grant open access approval.

**Many developers intend to move away from discom-based PPAs to third-party power sale agreements for their existing projects. What are the challenges associated with this move?**

### Rajesh K. Mediratta

The key issues associated with discom-based PPAs include payment delays and lower revenue. While third-party sale agreements have become more popular, a major risk associated with them is that even if there is low CSS in a particular state, there is no certainty in the future years as the CSS is determined on a yearly basis through the aggregate revenue requirement. In our view, the best model would be third-party sale of electricity to consumers and REC sales through exchanges at market-determined prices. However, of late, the REC market has lost its attractiveness due to the oversupply of RECs.

### Vikalp Mundra

If developers are under a long-term PPA with the discom at preferential tariffs, they have to follow and comply with a cooling period before migrating to any other mechanism. This is typically three years. However, if the project is under the REC mechanism and with power sold to the discom at the APPC, the developer can migrate to third-party power sale without much of a hassle, in three months typically, provided that third-party power sale is allowed in that particular state, and subject to the conditions of the power sale agreement at the APPC rate.

### Ajit Pandit

Modification in the existing power offtake arrangements will have to be dealt with strictly as per the provisions included in the PPAs. Under such switching arrangements, developers would be willing to take market risks; however, this would also

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affect utilities/discoms' long-term renewable energy procurement planning. Utilities that are required to fulfil their renewable purchase obligation (RPO) targets are not likely to encourage such switching of offtake arrangements to protect their commercial interests. Hence, developers opting for the third-party sale model are likely to face challenges in terms of procedural and legal barriers, unless the existing PPAs have provisions for such a switchover in offtake arrangements. However, utilities that exceed their RPO targets are more likely to allow third-party sale.

### Vinay Rustagi

Developers face issues in securing financing from banks for third-party projects due to poor bankability of end-consumers in certain cases and the small size of these projects. The small size (ranging

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from 10 kW to a few megawatts) also means that scalability is a concern.

### S. Venkatachalam

Identifying creditworthy consumers is the biggest challenge, besides the lack of long-term visibility in sale approvals from discoms and other authorities.

**Which states offer the most and the least conducive environment for setting up third-party renewable projects?**

### Rajesh K. Mediratta

The third-party sale model started off in the southern states. However, Tamil Nadu has discontinued banking and wheeling for third-party sale and allows it only for captive renewable energy generators. Karnataka offers a better environment for third-party sale where banking and wheeling is allowed. In the western and central regions, Gujarat, Rajasthan and Madhya Pradesh are the high-potential states that allow third-party sale of power and also have a favourable environment for the development of renewable energy.

### Vikalp Mundra

Our experience with Madhya Pradesh has been excellent and there is absolute clarity in policies and procedures in the state. It provides the most conducive environment for setting up solar power plants for third-party power sale. Some early actions are also expected in Telangana and Seemandhra.

### Ajit Pandit

Many states are offering concessional banking and wheeling facilities to encourage third-party sale of renewable energy. However, these vary across states and differ for each type of renewable energy technology.

### Vinay Rustagi

The favourable states include Tamil Nadu, Madhya Pradesh and Karnataka, which offer conducive policies for clean energy development. Tamil Nadu also offers opportunities for the group captive model while Madhya Pradesh offers concession-



al charges. As regards the least conducive states, Maharashtra has high open access charges and restrictions on banking. Open access charges are also high in Delhi and Haryana while Gujarat has a new regulation which puts restrictions on open access.

**What are your recommendations for effective implementation of open access for third-party sale of renewable energy?**

**Rajesh K. Mediratta**

In most countries such as Spain and Germany, where renewable energy accounts for at least 10 per cent of the total installed capacity, renewable energy generators are treated at par with conventional generators for open access. Renewable energy is mandatorily sold in the market and is subject to normal open access charges. A similar trend is expected in India, where renewable energy accounts for more than 12 per cent of the total installed capacity and large-scale expansion is being targeted in the solar and wind segments. System operators are required to take this into account. This indicates

that banking and wheeling would be disallowed in the future and third-party sale will need to be simultaneous.

Currently, system operators face problems in terms of interruptibility of wind/solar generation, particularly in Gujarat, Rajasthan and Tamil Nadu. State utilities are subject to imbalance costs due to deviations caused by renewable energy generation. Even though industries will continue to seek states to obtain benefits in terms of discounted or no transmission and wheeling charges to encourage third-party sale, states are not likely to give these discounts.

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**Vikalp Mundra**

The Ministry of Power is planning for the Green Energy Corridors project to support better grid availability. Moreover, clarity in the terms and conditions of long-term open access and third-party power sale will facilitate the setting up of more plants under this mechanism. Making sale of solar power eligible for availing of subsidised wheeling and transmission charges, banking, reduction of contract demand charges, etc. will ensure effective implementation of open access for the third-party sale regime for renewable energy projects.

**Ajit Pandit**

There are several factors that would affect the success of the third-party wheeling model. Some of these factors relate to the current state policies, regulatory parameters governed by the SERCs and weak implementation practices of utilities. For the third-party wheeling model to succeed, it must be ensured that renewable energy policies and regulatory frameworks across states and the role of implementing agencies are aligned.

**Vinay Rustagi**

We recommend the liberalisation of open access, a stable policy environment and better policy coordination between the centre and the states. Also, in view of the significant environmental and social benefits of distributed generation, a financially attractive open access mechanism should be put in place. Finally, any financial incentives such as accelerated depreciation (AD), should be made available to all project developers (for example, through AD certificates).

**S. Venkatachalam**

- Power generated from renewable sources should be exempt from the levy of cross-subsidy charges and scheduling of power.
- Transmission charges should be imposed on the basis of generation (in kWh) instead of installed capacity (in MW).
- Renewable energy should be exempt from electricity taxes and duties. ■