



## New Market for Solar in India- Private PPAs

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Bhupesh Trivedi looks at the new opportunity of solar captive power plants and private PPAs; leveraging Open Access system across India.



It seems that Feed-in-tariffs and the ambitious government-sponsored 20-GW National Solar Mission (NSM) may lose value. The change actually will open the

floodgates for investments in solar power sector, reduce government's subsidy burden, and put the country's solar plans on the fast-track. It is just that the business will become more market-driven, rather than being government subsidy-driven.

Across the country, the existing conventional power cost ranges from Rs 7 to Rs 12 per unit for industrial and commercial users, against the new solar power benchmark price of Rs 7 per unit at which a company won bid in Odisha state recently.

With falling project costs, bidders wanting to sign PPAs under different gov-

ernment policies may offer rates lower than Rs 7 per unit to supply power to government-owned power distribution companies. At the other end, new and under-construction thermal power plants with a total capacity of 42,000 MW are asking the government for a higher rate under their respective PPAs because of the continually rising cost of imported coal.

So, when conventional power costs in the country are likely to surge, it is obvious that a solar power project developer in India is losing money by selling power to the government at a price of Rs 7-7.50 per unit through a power purchase agreement (PPA) that is mutually obligatory for a period of 25 years.

Instead, it makes a lot more sense for an investor or a project developer to shun 25-year-long (PPAs) with governments and use the 'Open Access' system to sell power to industrial and commercial users directly. Such users are paying more than Rs 7 to Rs 12 per

unit for existing erratic power supply and will be keen to pay more for reliable supply. Solar power project developers can exercise an option too to raise the cost of power supplied at regular intervals over the supposed lifespan of 25 years of the power project.

With the same business model in mind, some EPC companies have even actually started proposing to their blue-chip clients that they will be open to making the capital investments required to set up a captive solar power plant, provided the clients signed a long-term power purchase agreement with them. It is evident that an investor or developer will gain more by directly supplying to end-users, rather than to the government power distribution companies under long terms PPAs.

That surely raises questions on the significance and value of various state governments' policies as well as the ambitious National Solar Mission of the central (federal) government of India. One wonders what

will happen to these policies and the mission itself, if project developers refrain from bidding to sell power to the national grid.

For the state governments' policies and the NSM to remain significant, the price offered by the government to solar power project developers will have to become variable over the entire duration of the PPA. If not, it would surely be a losing proposition for a solar power project developer/investor to commit power at such low rates for the next 25 years.

The 'Open Access' system enables any power producer to sell power to any user across the country through the national grid, by bearing costs of transmission and distribution losses as well as wheeling and banking charges. These costs may weigh on the profitability of the power project for now. But, committed higher billings over the next few years could provide much higher returns, compared to fixed rates provided under the PPAs with different governments.

### **FOR THE STATE GOVERNMENTS' POLICIES AND THE NSM TO REMAIN SIGNIFICANT, THE PRICE OFFERED BY THE GOVERNMENT TO SOLAR POWER PROJECT DEVELOPERS WILL HAVE TO BECOME VARIABLE OVER THE ENTIRE DURATION OF THE PPA**

The success of the 'Open Access' system will also depend on the condition of "minimum committed load" that makes an industrial user to pay a minimum bill amount every month to the local distribution company, irrespective of how much of conventional power was consumed.

But, different regulations in the country have already cleared the way for other precedents where large industrial units set up gas or coal-based captive power plants. A similar arrangement for solar power will ensure that the end consumers and solar power project developers will be able to

build mutually-profitable relationships.

At the other end, while the state government policies were expected to boost the solar power sector in the country, the captive or end-user segment offers a much larger market of at least 25,000 MW over the next 5-7 years.

Even if the benchmark solar PV power project cost falls from the current Rs 9 crore to Rs 7 crore, it promises to be a market with a value of Rs 175,000 crore (about US\$ 35 billion).

The rules of the game in India have surprisingly changed even though the total installed solar power generation capacity in the country has not crossed 1,000 MW, against state and national governments' targeted capacities exceeding 30,000 MW over the next decade.

If all solar power project developers were to go for the 'Open Access' system, one would wonder about the fate of different state governments' policies and the national government's National Solar Mission.

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