Powering Ahead with Competition

Given the ever-growing demand for reliable and affordable power, it is crucial that we continue to move forward towards fostering competition and market development, and not take a step back.

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Two decades ago, India introduced competitive bidding for electricity power procurement, which has yielded significant results in the form of greater competition and increased investments.

Competitive bidding based price discovery leveraged rapid technological advancements to achieve efficient pricing for solar power. Tariffs fell from Rs 15/kWh in the initial bidding rounds of 2010 to Rs 2.80/kWh by 2018. About 27 GW of capacity was added, driven by the private sector. In the wind space, competitive bidding led to tariffs falling from Rs 5.30/kWh to Rs 2.50/kWh in just two years. The benefits of competitive procurement extended to smaller projects as well.

Recently, the renewable energy (RE) sector introduced several innovations to meet the growing demand for reliable power supply. Since 2018, over 9 GW of RE and 15 GWh of storage have been contracted through storage-linked tenders to overcome the challenges of intermittent renewables. The benefits of competition are also evident in battery energy storage procurement where the discovered price has fallen sharply.

The RE sector has lower entry barriers compared to traditional power sources encouraging participation from big as well as smaller players. This is due to several factors — shorter gestation periods, lower investment requirements, absence of fuel-related risks and the modular nature of technologies, especially solar and battery energy storage. The sector demonstrates a continuous learning curve, adapting with each new tender. This evolution is evident in three key areas: Increased capacity, price reduction, and improvements in tender conditions to meet the complex requirements of procurers.

A recent development threatens this positive trend. Some states are inviting bids for capacity from both coal and solar sources using a composite bid structure. These tenders require bidders to supply both energy sources, with selection based on an average tariff. For example, one tender is for 1600 MW of coal-based power and 5000 MW of solar, and another in a different state requires 3200 MW of coal power and 8000 MW of solar. In the former, the entire capacity can be shared by at most two bidders and in the latter the total quantum is to be offered by each bidder. This would mean an investment of about Rs 28,000 crore from one or two parties in the first case and an investment of about Rs 52,000 crore from a single party in the other case. These tenders represent the majority of both coal and solar capacity needs for these states over the next six to 10 years. However, despite the composite bidding, actual power delivery timelines will differ significantly. Coal plants require about six to seven years to become operational, compared to one-and-a-half to two years for solar projects.

Allocating a majority of the future capacity to a single tender is akin to putting all eggs in one basket. This approach not only excludes smaller players due to the massive investments required but also eliminates potential tariff reductions and innovations that could result from spreading procurement across years —

a benefit particularly relevant for solar projects with shorter gestation periods. The requirement for bidders to commit to substantial solar and coal capacity simultaneously has adverse implications. This approach effectively excludes many developers from the bidding process. Some players may struggle to secure the necessary capital for investments at this scale. Developers without expertise in building and operating thermal power plants also find themselves at a disadvantage, though they may be competitive in the solar sector. Thermal as well as solar plants will continue to operate independently, offering no particular advantage due to composite tendering. By concentrating procurement in large, composite tenders, states will be foregoing benefits of a more diverse, competitive, phase-wise and innovative power procurement.

Whether these proposals will translate to procurement and if so, at what price point is yet to be seen. The advancement towards a robust wholesale power price discovery through competitive bidding should not be undermined by such arrangements. Measures are needed to foster competition and innovation. Distribution utilities should consider implementing an annual procurement calendar to acquire capacity, providing investors with greater clarity and certainty. Given the ever-growing demand for reliable and affordable power, it is crucial that we continue to move forward towards fostering competition and market development, and not take a step back.

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