

Revisiting UMPPs

Do we need such large thermal capacities?

In view of the increasing power demand, the power ministry is reportedly mulling a proposal to bid out ultra mega power plants (UMPPs). To recall, the UMPP programme was launched in 2005 to develop large capacity power projects by providing services like land, coal, funding tie-ups and clearances to developers. However, the programme failed to achieve the desired pace. Since the launch, only four projects have been bid out, while subsequent bidding rounds have been cancelled due to lack of private sector interest, among other things. Only two of these have become operational. Moreover, changes in international markets have significantly impacted the cost of imported coal for UMPPs and bidders have expressed their inability to deliver power at the quoted tariffs. *Power Line* asked industry experts to comment on the government's proposal...

Is the proposal for reinitiating bidding for UMPPs warranted given that the existing power capacity is not being fully utilised?

Sabyasachi Majumdar

In view of the subdued utilisation of the existing thermal power capacity, the state-owned discoms must be encouraged to procure power from the existing thermal power projects in the private sector through the competitive bidding route, rather than setting up new capacities in the state sector or calling for new UMPPs. This would enable optimum utilisation of resources and improve demand-supply balance in the sector. The proposal for new UMPPs can be considered once the operational thermal power capacity achieves a reasonable utilisation level of at least 70 per cent. While awarding new UMPPs, the policy must

ensure fuel security and provide clarity on fuel pricing with provisions for passing-through of any impact from adverse events. Further, the projects must be awarded post the completion of land acquisition and with required statutory approvals to enable their completion within scheduled timelines.

Rajesh Mokashi

The concept of UMPP development under tariff-based competitive bidding using supercritical technology has obvious advantages. It has the potential of discovering very low tariffs based on large-scale generation at lower capacity and variable cost on account of higher efficiency and minimum fuel logistics costs.

The UMPP scheme was launched with much fanfare. However, the scheme did

not quite achieve its objective given the lacklustre response from private developers. So far, only two UMPPs have been implemented, with others suffering owing to myriad reasons including policy instability and project unpreparedness.

Despite the advantages of installing UMPPs, it is pertinent to question the need for such large capacities in the current scenario given that existing projects are running at low plant load factors (PLFs) and struggling due to want of PPAs. Further, around 47 GW of capacity is currently at various stages of development and is likely to be commissioned in phases till 2022. The all-India PLF for 2017-18 stood 60.72 per cent, whereas the PLF of private generation companies stood at 55.32 per cent. It is also important to add that as per the Central Electricity Authority's 19th Electric Power Survey, no additional coal-based capacity addition is required, apart from the projects under implementation, to meet the projected peak and base demand till 2022, considering a demand growth of 6.18 per cent for 2017-22. The requirement of additional thermal capacity thereafter is contingent upon sustained industrial activities in India, the availability of domestic coal through development of new mines, greater private participation, the extent of revival of stressed assets in the National Company Law Tribunal (NCLT), and the political and regulatory environment.

Dr S.L. Rao

When introduced, the UMPP scheme was a novel idea as it was planning a generation capacity of 4,000 MW built at the pithead of coal mines so that there was no long distance transportation of coal. The fact that it was coal mine based gave a lot of advantage in terms of dealing with coal and using transmission towers and lines. Another type of UMPP was based on imported coal. Two examples are Reliance Power's plant at Krishnapatnam and Tata Power's Mundra plant. Imported coal was thought to be abundant and cheap. Both availability and prices of imported coal were controlled by foreign governments. In the



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case of UMPPs based on imported coal, though the foreign mines were bought from Indonesia, the Indonesian government significantly raised export prices. The demand by lenders for long-term (25 years) tariffs made the economics very shaky. Both Tata Power and Reliance Power's plants became unviable because the domestic tariffs were set for long periods at non-negotiable prices. Imported coal prices went up sharply and the tariffs that were allowed to Reliance Power and Tata Power were not adequate. So Reliance Power did not build the power plant, while the Mundra plant lost a great deal of money that adversely affected Tata Power's overall profits. It would have been better if imported coal prices were not assumed for a long period by the regulator, and consumer tariffs were not frozen for a long period. It would have been better for UMPPs to have less control on tariffs, the period of tariffs, coal cost, etc. So out of thought, UMPPs should have been focused purely on coal, whether it was domestic or imported, and left to producers. It didn't happen. So now I don't think UMPPs has achieved their purpose. For this reason, imported coal-based UMPPs did not serve the purpose nor did UMPPs with captive domestic coal mines because coal was not always adequately available. The corruption of handing over coal blocks to unsuitable parties created a shortage of coal and perhaps diversion of captive coal.

What are the policy gaps that must be fixed to attract more bidders and reduce the burden of stressed assets?

Sabyasachi Majumdar

Some of the key challenges for the power sector have been the slow demand growth and poor paying capacity of the discoms, which have led to a lull in the signing of new long-term PPAs. This has adversely affected many thermal power projects in the independent power producer segment, with about 26 GW commissioned and under-construction capacity remaining without long-term PPAs. However, demand growth is now on an uptrend, with growing focus on house-

hold electrification and 24x7 power supply to all. The electricity demand growth is expected to remain in the range of 5-6 per cent in the near term. This, in turn, will increase thermal PLF level from 60.7 per cent in 2017-2018 to around 62-63 per cent by 2019-20 on an all-India basis. The extent of improvement is moderated by the rising share of renewable energy in the generation mix.

Rajesh Mokashi

The private sector is less interested in UMPPs mainly because of the design-build-finance-operate-transfer (DBFOT) mode of project execution. As per private developers, the DBFOT mode distributes the risk disproportionately between the project developer and the procurers of power. There is partial/no fuel cost pass-through. In addition, there are onerous termination clauses and strict norms that pass all the losses to the project developer, making them mere contractors.

Under DBFOT, the developer loses a lot of incentives on account of sourcing high performance, long-lasting equipment. However, higher generation reliability with no concession expiry constraints allows developers to raise longer tenor funds, easing cash flows. Moreover, developers and lenders are not likely to be in a situation of uncertainty due to onerous termination.

Further, it is not only the difficult bid provisions that are keeping the private parties at bay, but also the unpreparedness of the concerned host states in terms of allocation of land and water, and fuel, which is stalling the bidding for UMPPs. Currently, the standard bidding document being finalised and is yet to get the cabinet nod.

Dr S.L. Rao

The tariff is fixed for many years in advance and that is a big problem, particularly in imported coal projects, but even in domestic coal so UMPPs should not have fixed tariffs for more than two years at a time. Then there is the question of coal availability for reasons men-

tioned above. The domestic coal mines were not always able to deliver. That again was a huge problem. Pressure on UMPPs increased because the government licensed gas-based power, but gas was not delivered as there is a lot of gas-based capacity that is not functional. Thus, the planning of this whole operation of increasing power generation was inadequate. Policy planning of the concept had several gaps. The entire problem comes in because the government is involved in both granting you the licence and then fixing the retail tariff, and I think that these should be left to the market. If you are planning a lot of generation capacity, then the retail tariff should have been left to the market. Today, there is a lot of surplus capacity but tariffs are still being set through regulation. State governments have largely avoided importing power from other surplus states. Instead, they have maximised supply from plants in the state even when they were old and inefficient. This prevention of "open access", even when the 2003 Act allowed it, has been a major source of overall inefficiency. We know that about 25 per cent of the generation capacity in India is inefficient because they are old plants. They should have been shut down and then the new power plants would have been able to sell that power in the market. That did not happen because we did not close down the old power plants and open access is not allowed. Therefore, in many parts of India there is a lot of generation capacity but no market.

In conclusion, UMPPs with 4,000 MW of capacity at pithead or at port towns is basically a good idea but the government should stay out of the fixing of coal and retail power tariffs. Transmission capacity should be adequate to move the power around the country. Domestic coal mines should be auctioned in a transparent manner to power plants and it must be ensured that coal is used for generating power and not sold in the market. Tariffs should not be locked in for more than two years. There are many other things to be done if the idea of UMPPs is to contribute to power availability. ■