Content and Carriage
An Emerging Issue in Electricity Distribution

SOMIT DASGUPTA

There is a need to rethink the existing Electricity Act 2003 and amend it to address the problems of the Indian power sector. The issues surrounding healthy competition in the power sector and the costs of "wires and content" segregation must be debated in the Indian context.

Somit Dasgupta (*sd_gupta@yahoo.com*), is an Adviser in the Planning Commission, New Delhi.

Now that the Electricity Act 2003 (henceforth called the Act) has been in force for more than a decade several inadequacies have been noticed, which may require its amendment if they are to be addressed. However, before turning to the required amendments, a brief look at two amendments in the Act, which were brought about in 2003 and 2007, may be in order. In 2003, the government had made a very important amendment in the Act whereby it mandated that all consumers with a load in excess of 1 MW would necessarily have the option of open access not later than five years of the amendment coming into force, which meant January 2009. In addition, there were some other amendments relating to powers of the appellate tribunal, wastage of electricity, grant of distribution licences to more than one licensee, etc. In 2007, several amendments were passed relating to joint responsibility of central and state governments of rural electrification, recognising that subsidies in the power sector cannot be reduced to zero but may be reduced over time, stringent provisions for theft of electricity among others.

Inadequacies of the Act

The first issue is of open access. It has been seen that state governments stifle open access by not allowing sale of surplus electricity to consumers outside the state. To ensure this, the states have taken refuge under Section 11 of the Electricity Act 2003, which says:

> The Appropriate Government may specify that a generating company shall, in extraordinary circumstances operate and maintain any generating station in accordance with the directions of that Government.

What constitutes extraordinary circumstances has not been elaborated in the Act and state governments have been using this section indiscriminately to stall open access. There is thus a need to specify what amounts to extraordinary circumstances and this can now be done only through an amendment. In addition to the above, open access has been denied in several cases with the state load dispatch centres (SLDCs) taking a stand that

there could be technical impediments because of congestion. However, this may not be the reality.

The second issue is that of policy directions, as stated in Sections 107 and 108 of the Act. Under these provisions, the central government and the state governments can issue directions to the Central Electricity Regulatory Commission (CERC) and the concerned State Electricity Regulatory Commissions (SERCs) to adopt a course of action that the government feels is in public interest. This has raised several questions, the primary one being "can any government give directions to a regulatory commission on a matter which is the sole statutory prerogative of the commission?" In a case involving the Delhi Electricity Regulatory Commission (DERC), the High Court of Delhi had ruled that the government has no powers to issue policy directions on such matters that are clearly in the domain of regulatory commissions.[1]

The third issue that merits an amendment relates to the promotion of renewables. Section 86(1)(e) of the Act states that the regulatory commissions can stipulate the percentage of power to be purchased from renewable sources. Almost all regulatory commissions have fixed this ratio, known as Renewable Purchase Obligation (RPO), but the problem is that it is not being enforced. That being the case, the distribution companies are not implementing the directives of the regulatory commissions and are not being penalised. As a consequence, the scheme of renewable energy certificates is not proving to be effective and the certificates are selling at floor prices being fixed by the CERC because of a lack of demand for the certificates. An amendment to the Act that penalises violations of the RPO ratios fixed by the commissions should help implement it better.

The Electricity Act 2003 gives a lot of freedom to the regulatory commissions on the issue of determination of tariffs. It is well known that regulatory commissions are still to come of age and in most cases are governed by requirements of state governments. As a consequence, tariffs have failed to keep pace with rising cost of generation and supply. In many states, tariffs have remained static for many years, not even adjusted for inflation. The regulatory commissions have left an uncovered gap deliberately by overestimating revenues and underestimating costs, including transmission and distribution losses. Since most of the distribution companies are in the public sector, no one is approaching the Appellate Tribunal for Electricity (APTEL), for relief. This, of course has not worked in the case of Delhi, where private distribution companies are in operation. The private companies have regularly taken the DERC to the APTEL.

The law needs to change whereby regulators can have no discretion in leaving gaps in policy. An immediate step could be making fuel surcharge an admissible expenditure. As of now, while some SERCs have allowed it as an automatic pass through, there are other companies that still have to get an order from the commission before the fuel surcharge can be levied. This has proved to be disastrous for many companies since they are liable to pay fuel surcharge to the generators (by virtue of CERC orders), but they cannot recover the same from the consumers till such time they get specific orders from the regulatory commissions. Thus, in the intervening period, it causes a cash flow problem.

The next issue is that of competitive bidding which is mentioned in para 5.1 of the Tariff Policy. As on date, competitive bidding is mandatory for all thermal projects, be it the private or public sector. The point is that no such clause exists in the Electricity Act 2003. While Section 61 states the guidelines to be followed by the regulatory commission while fixing the terms and conditions of tariff, Section 62 states for who all the commissions could determine tariff and with what periodicity, etc. Further, Section 63 states that in case tariff is fixed through a bidding process, the same shall be adopted by the regulatory commission. Nowhere does the Act say that the bidding process shall be the only methodology to be followed for tariff determination. Thus, can the provision of the Tariff Policy override the provisions of the Act when the latter is clearly on a higher pedestal? If the government is of the view that tariffs can only be determined through the process of bidding, the Act would have to be suitably amended.

Issues Regarding Segregation

Finally, we come to the central theme of this article, i e, the segregation of the "wires and content" in the area of distribution. Now what does this really mean? It means that there shall be only one owner of the distribution wires and there can be several other licensees who would only be in the retail business, i e, these licensees can only buy power and sell to their respective consumers. Someone who has the wires business cannot indulge in retail in order to rule out discrimination. In other words, this would imply that we are segregating the monopolistic and the competitive portions of the distribution business. While the wires business is the monopolistic portion by its very nature, retail business is be the competitive element.

Before going into the details of such an arrangement, one has to understand as to why this suggestion to segregate the competitive and the monopolistic portions is being made. The basic premise of the Act is competition and the attempt is to have a large number of buyers and sellers. Delicensing of generation except for techno-economic clearance for hydel projects, recognising trading as a distinct activity, introduction of open access in distribution, allowing for captive generation, etc, are all attempts in that direction. When the issue is of having more than one distribution licensee in a particular geographical area, Section 14 of the Act says that more than one licensee is permitted but each would need to have its own set of wires. Needless to say that this is an impractical idea given the amount of space requirement for each licensee to set up their own substation and also the capital intensive nature of laying wires. Such an arrangement would be a gross wastage of resources. Segregation of "wires and content" could provide an alternative arrangement, where one could introduce competition and overcome the pitfalls of Section 14 of the Act. It would perhaps be better to try and understand the segregation of wires and content by taking a specific example.

Take the case of Delhi, where there are four distribution licensees namely, the

BSES Yamuna Power Limited (BYPL), BSES Rajdhani Power Limited (BRPL), New Delhi Power Limited (NDPL) and the New Delhi Municipal Council (NDMC). At present each distribution licensee is the owner of the distribution wires in its respective licensed territory and also the retailer simultaneously. Once segregation is introduced, each of the four licensees will only be a retailer and the ownership of the wires would go to a third party or may be to the Delhi Transco Limited (DTL), which is Delhi's transmission company. In such a situation, DTL would become the owner of wires of both transmission and distribution.[2] Now in order to achieve this, a major portion of the Act will have to be rewritten, for example, the definition of a distribution licensee would change, and a new type of licensee will have to be introduced – wire licensee. The concept of open access in distribution would disappear since no single retailer would be the owner of the wires, there would be no cross-subsidy surcharge, etc. Consequently, each retailer would be paying the wheeling charges to the owner of the wires while reaching out to its retail consumer.

As for the consumer, he/she could choose from amongst the retailers who have a retail licence in his/her state. To have such a system, a lot more would need to be done apart from amending the Act. Just to mention an obvious few:

(1) The assets of the existing distribution utilities would need to be reassigned to the new wire company, necessitating a revision in their balance sheets. In the case of Delhi and Odisha where distribution has already been privatised and new balance sheets have been drawn up, this would, prima facie, be difficult.

(2) The Power Purchase Agreements (PPAs), originally held by the distribution companies will have to be reassigned to the new retail licensees.

(3) Depending on when to bring in competition, all consumers would progressively be taken out of the purview of the regulatory commissions as far as determination of retail tariffs are concerned.

If the intention is to bring competition, the story cannot end here. By concentrating the PPAs in the hands of a few existing retail licensees, one is creating barriers to entry and the only way to get rid of this problem is to simultaneously create a wholesale market for power. By creating a wholesale market, one would be divesting the retail licensees of their PPAs and generating companies would directly bid into the wholesale market. The bulk consumers would give their bids and some clearing agency would determine as to what is the market clearing price.

Past Experiences

We are thus in the United Kingdom (UK) or the United States (US) model, where both generation and retail are in the competitive mode. While this is the structure in the whole of the UK, as far as the US is concerned, this kind of restructuring is limited to a few states only. Many states backed out of any kind of restructuring programme after seeing the California crisis. In fact, many argue that the California crisis was because of an inappropriate market design to the extent that while the generation sector was made competitive, the retail prices were kept fixed for a certain time period (Blumsack et al 2005). What we are attempting to do in India would again be an inappropriate market design where the retail section is being made competitive whereas the generation sector is kept regulated.

The moot point is – what are our priorities? Should we be concerned with segregation of content and carriage at this stage or concentrate on how to develop a revenue model for reaching out to more than the 50% of our households, primarily in the rural areas who still have no access to electricity? Moreover, restructuring of the power sector, on the lines indicated in the previous paragraphs comes at a considerable financial cost.

There are estimates in that in the UK the regulatory institution itself spent about £38 million per year (Dubash and Singh 2005). The initial cost of starting market institutions and its support infrastructure for communication between the players and the system operator can be considerable. In the case of UK again, by 2000, an amount of £25 million was being spent by the regulator for consulting services alone (de Oliveira and Tolmasquim 2004). To top it all, it is a well-known fact that both in the UK and in the US, the small consumer gained nothing from the restructuring exercise. The small consumer was never interested in switching his retailer since the transaction cost far outweighed the gains. The only gainers were the directors, the management and the shareholders of the companies. It would be equally pertinent to point out that introduction of competition in UK did not lead to a fall in electricity tariff. In fact, whatever decrease in tariff did actually take place was in the regulated sector rather than the competitive sector (Thomas 2005).

Conclusions

If that is the case, then in India, one should refrain from any serious thinking as far as segregation of content and carriage is concerned. Apart from the fact that the majority of the small consumers gained nothing from this restructuring exercise, the entire process is extremely expensive which a cash-starved Indian power sector can ill-afford.[3] There are also issues of polity involved as the power sector in India is in the concurrent list. Despite the Act being more than a decade old, even today not all state electricity boards have been unbundled what to talk of segregation of content and carriage. We have other issues of paramount importance to take care of, for example, how to overcome the shortage of fuels, both coal and gas. Above all, we need to ensure that we move into a regime where retail tariffs recover the cost of supply for each class of consumers. So let us take care of bread and butter issues before dreaming of caviar and champagne.

NOTES

1 Writ Petition no 4821/2010 (*Nand Kishore Garg vs GNCT of Delhi and Another*).

2 Usually lines below 66 KV are called distribution lines.

3 It is said that the total accumulated losses of the distribution utilities is more than Rs 2 lakh crore.

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