

B/01/5

Dated 22nd August 2005.

As per list enclosed

Sir,

Sub: Introduction of Competition in Retail Supply of Electricity

The Electricity Act 2003 provides an enabling framework to create a competitive and efficient power market. The Act also mandates the Appropriate Commissions to endeavour to promote development of power market. As part of its initiative in fulfilling the objectives of the Electricity Act, the Karnataka Electricity Regulatory Commission has prepared a discussion paper to explore possibilities of introducing competition in retail supply of power through multiple distribution licences without insisting on independent distribution network for each licensee, subject to amendment of the Electricity Act. A copy of the discussion paper is enclosed to this letter for your reference.

You are requested to furnish your views/comments on the discussion paper by 15th September 2005 positively.

Thanking you,

Yours faithfully,
For Karnataka Electricity Regulatory Commission

Secretary



KARNATAKA ELECTRICITY REGULATORY COMMISSION

BANGALORE

DISCUSSION PAPER

**ON INTRODUCTION OF COMPETITION IN RETAIL SUPPLY OF
ELECTRICITY**

22nd AUGUST 2005

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DISCUSSION PAPER

ON INTRODUCTION OF COMPETITION IN RETAIL SUPPLY OF ELECTRICITY

1. Introduction

Competition in supply and consumer choice is the hallmark of a competitive market. These are relatively new concepts in power sector in India. Power industry worldwide has undergone significant changes paving the way for creation of a power market and introduction of competition in wholesale and retail trading of power.

The Indian Power sector is undergoing important transitional changes after the introduction of reforms and restructuring in trade, industry and commerce. With the introduction of reforms and restructuring in the power sector, the generation of power, which was a State monopoly, was thrown open to private sector in order to bring in private investment. The Electricity Act aims at developing the sector further by introducing reforms & restructuring in the areas of transmission and distribution of electricity besides providing a conducive atmosphere for private participation in Transmission and distribution through multiple licences in these areas.

The domestic players having savoured success in the capital markets and foreign investors eyeing the Indian power market with renewed interest, the sector is on a massive investment drive. With the sector moving from monopolies to competitive markets, diverse competitive scenarios are likely to emerge.

The Gol and the State Governments are taking several initiatives to reform the power sector by providing appropriate financial, structural as well legal framework to make the sector financially viable and self sustaining with the ultimate objective of providing reliable and quality power to the consumers at

most reasonable and competitive rates. The Regulatory Commissions have been mandated to develop the electricity market with a view to ensure availability of power at competitive rates and also to provide choice of power suppliers to the consumers.

This discussion paper seeks to examine the existing legal framework to enable competition, provisions of NEP to introduce competition, progress made so far vis-à-vis the provisions of the Act, Demand and supply scenario, experiences in other countries, need to have competition in Indian power industry, etc.,

2. Provisions of the Electricity Act 2003 enabling competition

The Electricity Act 2003 provides an enabling framework to create a competitive and efficient power market. The following are some of the provisions to develop the power market and to introduce competition:

Section 7 provides to establish, operate and maintain a generating company without obtaining a licence subject to complying with Technical Standards.

Section 9 provides for Open Access to captive generators subject to availability of network for transportation.

Section 12 recognises transmission, distribution and trading of electricity as distinct licensed activities.

Proviso- 6 to section 14 provides for issue of parallel distribution licenses to two or more persons through their own distribution network within the same area.

Proviso 9 to section 14 stipulates that a distribution licensee shall not require a licence to undertake trading in electricity.

Section 39 (2) (d) in respect of STU and Section 40 (c) in respect of transmission licensee, specifies that non- discriminatory open access has to be provided to

their respective transmission system for use by any licensee or generating company and to any consumer as & when open access is provided by the State Commission.

Section 42 (2) mandates the State Commission to introduce Open Access in such phases and subject to such conditions and other operational constraints as may be specified within one year of the appointed date.

Section 42 (3) allows any person to obtain supply from a generating company or any licensee other than the distribution licensee of his area subject to payment of surcharge, wheeling charge and additional surcharge.

Section 49 provides for open access consumers to enter into agreement with any person for supply or purchase of electricity on such terms & conditions (including tariff) as may be agreed upon by them.

Section 60 provides the appropriate Commission to issue such directions to a licensee or generating company if they enter into any agreement or abuse their dominant position or enter into a combination, which is likely to cause an adverse effect on competition in electricity industry.

Proviso to Section 62 (1) provides the appropriate Commission to fix only a maximum ceiling of tariff for retail sale of electricity in case where there is more than one distribution licensee in the same area of supply.

Section 63 stipulates that the appropriate Commission shall adopt the tariff if such tariff is determined through bidding.

Section 65 provides for payment of advance subsidy by the state government to compensate the person affected by grant of such subsidy.

Section 66 mandates the appropriate Commission to endeavour to promote development of a market (including trading) in power.

3. National Electricity Policy (NEP):

The NEP has stressed the need to introduce competition in the power sector. Relevant paras of the National Electricity policy on introduction of competition are as under:

“5.4.5 The Electricity Act 2003 enables competing generating companies and trading licensees, besides the area distribution licensees, to sell electricity to consumers when open access access is introduced by the State Electricity Regulatory Commissions. As required by the Act, the SERCs shall notify regulations by June 2005 that would enable open access to distribution network in terms of sub-section 2 of section 42 which stipulates that open access would be allowed, not later than five years from 27th January 2004 to consumers who require a supply of electricity where the maximum power to be made available at any time exceeds one megawatt. Section 49 of the Act provides that such consumers who have been allowed open access under section 42 may enter into agreement with any person for supply of electricity on such terms and conditions, including tariff, as may be agreed upon by them. While making regulations for open access in distribution, the SERCs will also determine wheeling charges and cross subsidy surcharge as required under section 42 of the Act.”

“5.4.7 One of the key provisions of the Act on competition in distribution is the concept of multiple licensees in the same area of supply through their own independent distribution system. State Governments have full flexibility in carving out distribution zones while restructuring the Government Utilities. For grant of second and subsequent licence within the area of an incumbent distribution licensee, a revenue district, municipal council for a smaller urban area or a municipal corporation for a larger urban area as defined in the Article 243(Q) of the Constitution of India (74th Amendment) may be considered as the minimum area. The Government of India would notify within three months, the requirement for compliance by applicant for second and subsequent licence for distribution as envisaged in section 14 of the Act. With a view to provide benefit of competition to all sections of the consumers, the second and subsequent licence for distribution in the same area shall have obligation to supply to all consumers in accordance with provisions of section 14 of the Electricity Act 2003. The SERCs are required to regulate the tariff including connection charges to be recovered by a distribution licensee under the provisions of the Act. This will ensure that second distribution licensee does not resort to cherry picking by demanding unreasonable connection charges from consumers”

“ 5.7. Competition aimed at consumer benefit:

5.7.1 To promote market development, apart of the new generating capacities, say 15% may be sold outside long-term PPAs. As the power markets develop, it would be feasible to finance projects with competitive generation costs outside the long-term power purchase agreement framework. In the coming years, a significant portion of

the installed capacity of new generation stations could participate in competitive power markets. This will increase the depth of the power market and provide alternatives for both generators and licensees/consumers and in long run would lead to reduction in tariff.

For achieving this, the policy underscores the following:-

- a) It is the function of the Central Electricity Regulatory Commission to issue licence for inter state trading, which would include authorisation of trading throughout the country.
- b) The ABT introduced by CERC at the regional level has had a positive impact. It has also enabled a credible settlement mechanism for intra-day power transfers from licences with surpluses to licences experiencing deficits. SERCs are advised to introduce the ABT regime at the state level within one year.
- c) Captive generating plants should be permitted to sell electricity to licensees and consumers when they are allowed open access by SERCs under section 42 of the act.
- d) Development of power market would need to be undertaken by Appropriate Commission in consultation with all concerned.
- e) The Central Commission and the State Commissions are empowered to make regulations under section 178 and section 181 of the Act respectively. These regulations will ensure implementation of various provisions of the Act regarding encouragement to competition and also consumer protection. The Regulatory Commissions are advised to notify various regulations expeditiously.
- f) Enabling regulations for inter and intra state trading and also regulations on power exchange shall be notified by the appropriate Commission within six months."

4. Demand and Supply Scenario

Since independence the power sector in India is witnessing major changes. The demand for power has always outstripped the supply. Substantial peak and energy shortages prevail in the country. The installed generation capacity in India, which was 1362 MWs in 1947, has increased to over about 1.10 lakhs MWs at present. The CEA has projected a demand of 1.77 lakhs MWs by the year 2012. The per capita consumption has increased from 178 Kwh in 1985-86 to 379 Kwh in 2003-04. The per-capita consumption in India is extremely low as compared to other developed countries. There was an energy shortage of 7% in

2003-04 with a peak shortage of 11%. This is mainly due to the inherent perils of the Indian power sector like monopoly control of power utilities by the government, operational inefficiency, mounting technical and commercial losses, huge gap between the cost of supply and the tariff and absence of competition leading to monopolistic exploitations.

5. Progress of Reforms:

The enactment of the Electricity Act has opened new vistas for private investments in generation, transmission and distribution. With a view to provide indiscriminate open access in transmission system, the Act prohibits the Transmission Utilities from trading in power. Captive generators are allowed to sell their surplus power through open access and also transmit power from one place to another for their own use on payment of transmission charges. Unbundling of SEBs has taken place in many states. 13 states have unbundled/corporatised the SEBs and 27 States have constituted SERCs. The Act has also recognised trading as a separate activity and the CERC has already issued inter-state trading licence to many players in the field. The CERC and many states have issued regulations on open access in a phased manner and have also determined transmission tariff and surcharge to be paid for availing open access facility.

KERC has already introduced open access in phases through its regulation on open access. In the first phase HT consumers with CD of 15 MW and above and connected to 66 kV and above are allowed open access from 10.06.2005. KERC has also determined transmission charge, surcharge and wheeling charges to implement the open access. The Commission has also issued regulations pertaining to Trading in Electricity.

Since the sector has been managed by the state owned monopoly utilities, the real impact of the reforms in terms of better service to the consumers, supply of

quality power at reasonable and competitive rates and providing choice of suppliers to the consumers, even after five years of reforms is yet to come about. In such a situation, the Commission has to look to alternative means to achieve the objectives of reforms. One of the Options would be to introduce competition in retail supply.

6. Retail Supply market in other Countries:

UK:

The retail supply of electricity has been separated from distribution function, by issue of separate retail supply licence through the existing distribution network. All gas and electricity customers are allowed to change their suppliers. Since May 1999 over 19 million customers have changed their suppliers with savings upto 100 pounds in the energy bills. Average energy prices have fallen by 30%. There are 17 Distribution licensees & over 75 retail supply licensees who are supplying to various consumers including domestic customers. With the issue of multiple licences, consumers have been provided with a choice of suppliers.

USA:

In Colorado, the retails supply of power has been deregulated. In order to provide customer choice, all types of suppliers of electricity are allowed to compete for retail customers. Suppliers are allowed non-discriminatory open access to the distribution network. Except for requirement of universal service, exclusive monopoly in the supply including metering and billing service is no longer recognised.

In California retail supply of electricity has three investor owned and two municipal owned vertically integrated companies. Their service areas are discreet zones, and as such they have not competed with each other except for new industrial customers.

Australia (New South Wales):

Retail competition in electricity supply was introduced in seven phases based on annual electricity usage in 1996. Initially small number of large industrial customers was allowed to select retail suppliers. By January 2002, all New South Wales customers including household customers were having choice of retail suppliers. There are four state owned suppliers and 17 other retail suppliers.

New Zealand:

Separate Retail suppliers & distribution licensees exist. There are 10 retailers & 30 distribution companies.

Japan:

In Japan, only extra-high voltage customers are allowed to choose their suppliers.

Croatia:

Croatia has recognised retail supply as an independent activity. Retail supply to eligible consumers (annual minimum consumption of 40 MU or more) can be done after obtaining a licence.

7. Need for Competition in retail supply

Over the years, the vertically integrated State owned SEBs have become monolithic organisations and their financial health has deteriorated resulting in huge subsidy burden to the state governments. To make them financially viable and self-sustaining, re-organisation and restructuring of these organisations has been mandated in the Act. Although restructuring of the sector has taken place in many of the states, and a few of them having been privatised, the monopolistic nature of supply still persists. The parallel distribution companies with independent distribution network as envisaged in the Act are yet to come up in

spite of an enabling legal framework provided in the Act. The consumers continue to buy power from single monopoly utilities without any choice of supplier. As long as there is a single supplier, the consumer is not likely to get quality power at reasonable rates in each area since there is no competition in that area. The introduction of private companies in telecom and air services has seen a sea change in the prices and quality of services in these sectors. On the contrary, though several SERCs have notified the open access regulations besides fixing surcharge, transmission and wheeling charges, it has hardly helped consumers to come forward to avail open access. There may be compelling reasons such as cross subsidy surcharge, unreasonable transmission charges etc., for the consumers not to go in for open access. Nevertheless competition in the retail supply of electricity without insisting on a parallel network for the second and subsequent licensee will go a long way in introduction of competition in retail supply of power.

Electricity Act 2003 provides for parallel distribution networks to introduce competition. But, worldwide experience to introduce competition in retail supply, shows that instead of parallel networks, multiple suppliers are allowed to supply through a common network, as it is not economically viable to duplicate the existing distribution network due to the sunk-cost associated with it and the scale of economies derived from network operation. In this context it becomes imperative to separate supply from wire business to make retail supply competitive. In such a case appropriate amendment to EA 2003 is necessitated.

The pre-requisite for introduction of competition is that there should be many suppliers and many consumers. Though the number of consumers has been increasing year after year, there is hardly any choice of supplier. Although the Act provides for grant of multiple licences there are no instances of multiple licences having been issued with a parallel network. The reason is probably huge investment on the parallel network on the one hand and lack of corridors for the same. The Commission is of the view that one of the major factors, which is

discouraging open access is the exorbitant open access charges and non-availability of network capacity for transportation of electricity. The additional capacities are being contracted with the existing utilities through long-term PPAs. Even though the NEP provides for allowing 15% of new capacities to be reserved for direct sale by the generators it may take a long time for the things to take the desired shape. With a view to see that competition is introduced, the Commission suggests to take following steps:

- i) Distribution function, (covering the distribution network) should be separated from supply function. Allow such retail supply licensees to supply power to any consumer (irrespective of the load and supply voltage) through the existing distribution lines/network subject to by payment of transmission /wheeling charges to the existing transmission/distribution licensees.,
- ii) Provisions for new merchant generating companies to sell 100% of their capacities directly to consumers.
- iii) In the existing contracted capacities also, 15% of the capacity should be allowed for direct sale to consumers by renegotiating the PPAs.
- iv) Establishment of State Power Exchanges after central power exchange is developed by CERC.

The Commission would propose suitable amendments to the Electricity Act 2003 in order to implement the above steps.

The Commission would like to invite Comments and Suggestions on the following:

- 1. Should distribution and retail supply business be separated?***
- 2. If distribution & supply are separated, should the retail supply business be introduced in phases? If so what should be the time frame?***
- 3. How far the introduction of Retails Supply business would benefit the consumers?***

4. *NEP has defined the minimum area for a second distribution licence. If retail supply is segregated from wires business, what should be the minimum area?*
5. *What are the other alternatives for introducing competition in retail supply of electricity in the existing scenario?*
6. *If distribution & supply are separated should the existing consumers be made to pay full cross subsidy to cover the existing level of cross subsidy or allow them to pay cross subsidy at reduced rates and eliminate the cross subsidy over a given time frame.*
