

## UNIT 8

# ELECTRICITY TARIFF

*“The basic issue is how to make money selling something everybody wanted free”*  
*Abheek Burman, The Economic Times*

### 8.1 Background

The financial strategy of the Commission helps generate resources for the required growth of the power sector. Tariff Setting is an important instrument of Economic Regulation and is the main source of resource mobilization. Various State Governments have already released Consultation Paper on Tariff Principles. The Andhra Pradesh paper is very forward looking and directly emphasizes the importance of “Capacity to Pay” Principle.

From the view point of Consumers the indicator of performance is –Firstly -Tariff. Secondly - Quality of Supply including reliability , frequency , and voltage. And Finally -Quality of Consumer Service including redressal of grievance and promptness of new connection. And the order of priority in a developing economy is also the same. Tariff being most important component of performance indicator.

Tariff is a means of economic regulation and Objective of Economic regulation as enumerated by Usha Ramchandran of Administrative Staff College are-

- a. To improve efficiency in the Industry
- b. To prevent market power abuse
- c. To build investor confidence to attract investment
- d. To built consumer confidence
- e. To address public Policy Goals

Part VII of the Electricity Act is concerned with economic regulation through tariff. Section 61 states that

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*“The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following namely :-*

- (a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;*
- (b) the generation transmission, distribution and supply of electricity are conducted on commercial principles;*
- (c) the factors which would encourage competition efficiency economical use of the resources, good performance and optimum investments;*
- (d) safeguarding of consumers interest and at the same time, recovery of the cost of electricity in a reasonable manner;*
- (e) the principles rewarding efficiency in performance;*
- (f) multiyear tariff principles;*
- (g) that the tariff progressively reflects the cost of supply of electricity, and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;*
- (h) the promotion of co-generation and generation of electricity from renewable sources of energy;*
- (i) the National Electricity Policy and tariff policy”*

However the terms and conditions for determination of tariff under the *Electricity (supply) Act, 1948*, the *Electricity Regulatory Commissions Act, 1998* and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier.

## 8.2 Determination of tariff<sup>1</sup>

The Appropriate Commission shall determine the tariff for-

- (a) supply of electricity by a generating company to a distribution licensee. However In case of shortage of supply of electricity, the Appropriate Commission may, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity
- (b) transmission of electricity;
- (c) wheeling of electricity;

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<sup>1</sup> Section 62

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(d) Retail sale of electricity – However to promote competition the commission may fix only maximum ceiling of tariff for retail sale of electricity.

### **8.3 Equality of Treatment**

It is obligatory for the Commission, that while determining the tariff, it shall not show undue preference to any consumer of electricity. However the commission may differentiate according to the-

- consumers load factor,
- power factor,
- voltage,
- total consumption of electricity during any specified period
- the time at which the supply is required or
- the geographical position of any area,
- the nature of supply and
- the purpose for which the supply is required.

### **8.4 Frequency of tariff**

The Principle of “one tariff structure for at least one year” has to be followed generally but in case of any exigencies they can be amended.

### **8.5 Consumer Protection**

If any licensee or a generating company recovers a price or charge exceeding the tariff determined by the commission the excess amount shall be recoverable by the person who has paid such price or charge along with interest equivalent to the bank rate without prejudice to any other liability incurred by the licensee. That means the consumer can approach the consumer court or other institutions also for compensation if the licensee has extracted excess charge.

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## **8.6 Determination of tariff by bidding process<sup>2</sup>**

The Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government. The Guidelines for the same are yet to be issued by The CERC as of January 2004.

## **8.7 Procedure for tariff order<sup>3</sup>(Annual Revenue Requirement)**

An application for determination of tariff shall be made by a generating company or licensee in such manner and accompanied by such fee, as may be determined by regulations. Every applicant shall publish the application, in such abridged form and manner, as may be specified by the Appropriate Commission. The determination of tariff is a time bound exercise. The Orders must be passed within one hundred and twenty days from receipt of an application after considering all suggestions and objections received from the public. The Act dose not distinguish between received or Admitted therefore the discretion of the commission has been reduced by using the words received.

The Commission can take following actions based on the submissions-

- 1) Issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order;
- 2) Reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of this Act and the rules and regulations made there under or the provisions of any other law for the time being in force. However the applicant shall be given a reasonable opportunity of being heard before rejecting his application.

The Appropriate Commission shall, within seven days of making the order, send a copy of the order to the Appropriate Government,

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<sup>2</sup> Section 63

<sup>3</sup> Section 64

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the Authority, and the concerned licensees and to the person concerned.

Section 64(5) States that *“Notwithstanding anything contained in Part X, the tariff for any inter-State supply, transmission or wheeling of electricity, as the case may be, involving the territories of two States may, upon application made to it by the parties intending to undertake such supply, transmission or wheeling, be determined under this section by the State Commission having jurisdiction in respect of the licensee who intends to distribute electricity and make payment therefore”*

This effectively is the exception to the authority of CERC which primarily looks into the matter of Interstate transfer of Electricity. If the two parties agree to approach a state Commission which has the jurisdiction of the area of supply of Electricity then the state Commissions order shall be valid.

## **8.8 Provision of subsidy by State Government<sup>4</sup>**

If the State Government requires the grant of any subsidy to any consumer or class of consumers in the tariff determined by the State Commission, the State Government shall, pay in advance and in such manner as may be specified, the amount to compensate the person affected by the grant of subsidy in the manner the State Commission may direct, as a condition for the licensee or any other person concerned to implement the subsidy provided for by the State Government. It is also Provided that no such direction of the State Government shall be operative if the payment is not made in accordance with the provisions contained in this section and the tariff fixed by the State Commission shall be applicable from the date of issue of orders by the Commission in this regard.

There are various ways of tariff determination and the two most important ones used in India are as shown in the Box.

### **Method of Tariff Determination**

#### **Cost of Service Approach(COS)**

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<sup>4</sup> Section 64

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The provisions of the Schedule VI of the Electricity Act 1910 provide for this method of tariff determination. This is a cost plus approach.

### **Performance based Ratemaking plan(PBR)<sup>5</sup>**

This approach while recognizing the revenue requirement of the utility provides incentives for improving efficiency and reducing costs. This also eliminates the tendency of utilities under the cost plus regulation to be more capital intensive (Averch-johnson effect), then they would be in competitive environment. PBR empowers the electricity utility by enabling them to determine future course of action which leads to greater efficiency and certainty.

### **8.9 Fuel Adjustment Clause**

Around 70% of the generation cost is the cost of the fuel and it is essential that to maintain the viability of the financial condition of the Generators any increase in the fuel cost must be taken into consideration. The Fuel adjustment Clause does exactly the same. It allows recovery of every additional rupee spent on fuel. They provide the Generation utility zero cost insurance policy.

### **8.10 Availability Based Tariff (ABT)**

CERCs ABT order has brought in much needed discipline in the electricity grids. All regions have implemented ABT. The last region to introduce ABT was the North Eastern Region, which introduced the same on October 1, 2003. The Complete implementation of ABT has reduced the possibilities of grid collapse in future.

### **Availability based Tariff In phases. Following were the dates when ABT was Implemented in various regions.**

Western Region                      July1, 2002

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<sup>5</sup> NTPC has successfully applied PBR after the implementation of K.P.Rao Committee

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Northern Region	December 1, 2002
Southern Region	January 1, 2003
Eastern Region	April 1, 2003
North Eastern Region	October 1, 2003

There are some problems with ABT from the generators point of view<sup>6</sup>. While the System has stabilized and the cycles are maintained. The Generators face certain difficulties. They have to give 24 hour advance notice. If Generators fall short of schedule penalty has to be paid. But if there is excess of generation it goes for free to the buyer. It seems that generators cannot adjust the shortfall even if there is a demand in the grid. What is happening is that since the generators have to give a guaranteed schedule, the tendency is to be very cautious. If the generators do better than what they promise then they seem to lose<sup>7</sup>.

Interestingly the ABT regime has been able to ensure grid discipline to a great extent recently PGCIL has filed petition in CERC against MPSEB for not paying UI (unscheduled Interconnect charges arrears of 114 crore).

## 8.11 Conclusion

Free Power supply to farmers has ended in India<sup>8</sup>. This is probably the first step towards rationalization of Tariff to commensurate with the Cost of Service. Secondly the Recovery of Tariff arrears has become a major issue. The distribution licensee can adopt innovative measures to facilitate recovery of tariff. The example being that the tariff arrear could be collected in 12 to 24 month installment. Recently CESC has decided to recover tariff arrears over 12 years.

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<sup>6</sup> March 12, 2003 The Hindu Business Line, New Delhi.

<sup>7</sup> For E.g. The Nyveli lignite Corporation is expected to lose 150 Crore in one year because of implementation of ABT.

<sup>8</sup> With TNERC deciding to impose nominal charges for supply of electricity to farmers.