

CHAPTER - II

Tor (c): Review Electricity Tariff including the role of (i) State Governments; (ii) State Tariff Regulator; and (iii) SEBs' / State Distribution Companies in periodic tariff revision.

2.0 Background

In this chapter we address TOR (c) i.e. "Review Electricity Tariff including the role of (i) State Government (ii) State Tariff Regulator and (iii) SEBs/ State Distribution Companies in periodic tariff revision".

Historically electricity tariffs were fixed by SEBs / State Governments. Constrained by political and administrative compulsions, over the years this resulted in acute distortion of tariffs on a large scale. Thus arose the need for removing this (and other) responsibilities from SEBs/State Governments and vesting them in independent regulatory bodies.

Independent regulatory mechanism for the Power sector is somewhat new to our country but it has been working successfully in many developed countries. In India, the institution of independent electricity regulators was introduced for the first time in Orissa under World Bank assistance. Thereafter, this became an important item in the reform agenda for the Power sector and was ultimately included in the Electricity Act, 2003. Given the background for its introduction and the legal position, the regulatory mechanism for the Power sector is there to stay and cannot be wished away.

The focus of this study is not to confute the regulatory mechanism, but on identifying infirmities and suggest possible corrective actions to ensure proper functioning of the Regulatory Institutions.

2.1 Outline of the approach and data sources applied

As required by law, all regulators have issued Regulations which spell out the methodology to be adopted and principles to be followed by the Regulators for fixing tariffs for the utilities. These regulations amongst other things require the regulator to so fix the tariffs that all validated expenses of the utility get recovered

along with reasonable return on the investment made by the utility. The reality is that notwithstanding the above requirement, most of the distribution utilities have been incurring losses which have now assumed disturbing proportions. Obviously the regulatory arrangement is not working as expected to and legally required to.

2.1.1 A study was undertaken by Shri Divakar Dev, assisted by S/Shri Vivek Sharma, Pankaj Prakash and Deepak Pandey. The shortcomings thrown up by this examination can be grouped into following broad areas:

- a) Infrequent Revision of tariffs.
- b) Variations in the actual and estimated values of major expenditure items like, Power purchase cost, O&M cost and Capital Expenditure, their reasons and treatment.
- c) Variations in the estimated and actual revenue, their reasons and treatment.
- d) Gap between the total validated expenditure and total estimated revenue, if any, its reasons and its treatment
- e) Effect of prescribed and achieved milestones for loss reduction and collection improvement.

2.1.2 For the above analysis, all tariff order passed by the regulators in 8 States have been studied. In all total of 70 Tariff orders have been examined. The reference period considered for the analysis is from 1st tariff order to FY 2009-10. A template for capturing the dataset was prepared, and best attempts were made to collect this data from these Tariff orders and tariff petitions. (State wise results of this analysis is given in **Annexure - V**.)

2.2 Deficiencies in functioning of the Regulatory Mechanism

The present regulatory regime has been setup as a conscious and deliberate action for reforming the Power sector. This has been done after considerable deliberations both inside and outside the Parliament. Such mechanisms are working successfully in other countries. Creation of independent regulatory bodies understandably constituted a crucial element in the reform agenda for the Power sector. This is clearly stated in the Statements and Reasons in the Electricity Act, 2003. Relevant portions of the same are reproduced below:

“.....Over a period of time, however, the performance of SEBs has deteriorated substantially on account of various factors. For instance, though power to fix tariffs

vests with the State Electricity Boards, they have generally been unable to take decisions on tariffs in a professional and independent manner and tariff determination in practice has been done by the State Governments, Cross-subsidies have reached unsustainable levels. To address this issue and to provide for distancing of government from determination of tariffs, the Electricity Regulatory Commissions Act, was enacted in 1998. It created the Central Electricity Commission and has an enabling provision through which the State Governments can create a State Electricity Regulatory Commission. 16 States have so far notified/created State Electricity Regulatory Commissions either under the Central Act or under their own Reform Acts.....”

2.2.1 From the study and analysis of the tariff orders, it is observed that inadequacies and distortions in tariffs have been caused by actions and inactions of Regulators, Utilities and indeed the State Governments. This however should not lead to the conclusion that this arrangement should or can be done away with. On the contrary, the shortcomings in their functioning need to be identified and addressed with a view to streamlining and fine tuning their working. This is being attempted hereafter.

2.3 Regulator’s functioning

The approach adopted by most of the Regulators during Tariff determination relating to updated accounts of utilities’, truing of past costs particularly relating to power purchase and establishment, reduction in T&D losses may be theoretically correct, but it has often resulted in non recovery of valid expenses of the distribution utilities. Failure to revise and fix tariffs with due frequency has only aggravated the problem.

2.3.1 Importance of the utilities regularly updating their accounts and getting them audited in time cannot be overemphasized. Most of the utilities being registered companies, this is indeed their statutory responsibility. However, the reality is that by and large distribution utilities’ accounts are rarely up to date. With delays in finalization of accounts annual audit of accounts has also been delayed. Insistence only on audited accounts for truing up and tariff determination exercise has therefore often delayed the exercise itself. As a result these companies often continue to charge outdated tariffs and are also not able to recover revenue short falls of the previous years in absence of validation of their past expenses. They are

thus forced to borrow money from financial institutions/ banks for meeting their revenue gap. Loans for such purposes are no longer small and have reached disturbing amounts and in turn cause serious damage not only to these companies but also to the concerned financial institutions / banks.

2.3.2 The common explanation that is offered for failure to determine tariffs regularly is that the distribution utilities either do not file their ARRAs or tariff proposals in time or even if they are filed the same are not backed with audited accounts. The larger issue here is whether the regulator should be allowed to become a hostage to distribution utilities' failures or manipulations, or can he assert himself and discharge his functions with the best available, though not perfect, information/data. Tariff determination is a statutory responsibility placed on the regulator and he cannot shy away from the same or remain a mute spectator because of his own licensees' failures.

2.3.3 Instead of indefinitely waiting for audited accounts, the Regulators should undertake the truing up and tariff fixation exercise timely, based on the best available data as required by law. Some suggestions in this regard are :

- (a) The total cost of power purchased by the distribution company can be accurately calculated pending audit and the Regulator should be able to work on the basis of this unaudited figure if certified by the utility's Board of Directors. Same is true of the staff cost if the staff strength has not increased and after due scrutiny even if the strength has gone up.
- (b) While fixing the tariff, projections are made for the total power to be purchased by the distribution utility. These projections inevitably undergo change for various reasons. Purchases made by the utility in the spot market at relatively high prices are again often faulted by the Regulator if there are variations from the initial projections. Regulators should not be unduly rigid and disallow variations in this cost. The event having already taken place, a realistic approach can prevent revenue loss to the distribution utility arising out of power purchase cost already incurred but not recognized during truing up. The choice before the distribution licensee was to purchase and distribute relatively expensive power as per requirements of the situation or to impose power cuts. The distribution licensee's judgment on this issue should normally not be questioned and the power purchase cost actually incurred should be recognized and allowed during truing up.

- (c) Projections for total sales and their category wise distribution can again be worked out from the previous year's figures based on the historical CAGR. This in turn can be used for estimating the power requirement. Major part of the power purchased by the distribution utilities comes from long term PPAs, therefore cost of power to be purchased from such generators can also be estimated based on the latest available tariffs of such suppliers.
- (d) Generation tariffs usually have an in-built formula to take care of changes in the fuel costs of the generation company. Accordingly the bills raised by the Generation companies are based on such updated tariffs. No such mechanism exists in the retail tariffs fixed for distribution companies. This often results in short recoveries for the distribution companies which go on accumulating till the Regulator finally completes the truing up exercise. This can be eliminated or at least minimized by incorporating a similar provision in the retail tariffs also or by the Regulator carrying out this correction on ongoing basis. This has been successfully done by some states and there is no reason why similar formulae cannot be incorporated in the Retail Tariffs by other regulators.
- (e) In absence of audited figures O&M expenses can be estimated based on those allowed by the Regulator himself in the previous year and linking them to the consumer price index.
- (f) Even in absence of audited accounts or tariff proposals of the distribution utilities, Regulators can thus make fairly reliable estimates of major input costs for the coming year. Such being the case distribution utility's failure to file its proposals, or to back them up with audited accounts should not hold back or delay the tariff determination exercise. In such situations the Regulator should unhesitatingly determine tariffs suo-moto based on the previously allowed figures, corrected/updated as enumerated above. Failure to do so amounts to the Regulator failing to discharge its crucial statutory responsibility and the same should in turn invite adverse action.

2.4 These issues were considered and validated by Appellate Tribunal for Electricity vide its order dated 11th November 2011. Appellate Tribunal issued the following directions² :

- (i) Every State Commission must ensure that Annual Revenue Requirement (ARR) and tariff determination takes place annually.

² Excerpts of order dated 11/11/2011 of Appellate Tribunal for Electricity – Power of Regulator vis-à-vis suo-moto tariff revision.

- (ii) Tariff should be decided well before 1st April and should be applicable for the year so that Licensees remain vigilant to follow the time schedule for filing application for tariff determination.
- (iii) In the event of delay in filing such application beyond one month, the State Commission must initiate suo-moto proceedings.
- (iv) Truing-up should be an annual exercise.
- (v) Fuel and power purchase cost being major expenses should be allowed as monthly adjustments.

2.5 Reduction in T&D losses is an important element of the reform agenda. The Regulators have understandably been laying down targets and road maps for this purpose. Failure to achieve these targets often results in the Regulator calculating the Tariff based on the targeted loss figures and in turn under recovery of revenue for the distribution utility. The importance of the need for checking thefts and reduction in losses arising from the same is quite obvious. At the same time it is also true that no distribution utility, and certainly not a government owned one, can meaningfully tackle this problem without full and sustained support and help from the government. The reality is that Government support in checking power theft is lukewarm. It is therefore not surprising that many of the distribution utilities are either unable to meet the targeted figures or try other creative solutions. In such a situation, Regulators adhering to the targeted loss reduction levels for calculating the tariff, deprive the distribution utility of revenue for inaction which can at least partly be attributed to the State Government. It is therefore suggested that without releasing the pressure for effective action in this area, for calculating tariffs, the Regulator should refrain from ignoring the actual loss figures. Doing so will eliminate short realization of costs on this account. For achieving loss reduction objective the Regulator can use other tools available to him under law.

2.5.1 T&D losses are not uniform all over a state. In some areas losses are very high and in some areas they are modest mainly due to substantial variation in commercial losses. For Tariff calculation, presently most of the Regulators pool all losses together. If large number of consumers are less than transparent in one area there is no reason why their burden be placed on relatively honest consumers of another area as is the outcome of current practice. A glaring example of this is Uttrakhand where losses in far flung rural remote areas like Pithoragarh or Uttrakashi are below 20% while in high density areas i.e. Dehradun, Haridwar, Roorkee are around 40%. Pooling these for tariff purposes results in poorer

consumers of remote and far flung areas paying for pilferage of electricity by consumers in better off areas having sizable consumer population and favourable consumer mix. Comparatively inferior quality of supply and service in such remote areas only adds insult to injury.

2.5.2 To address this obvious inequity It is suggested that the basic tariff may continue to be fixed by the Regulator taking into account the targeted loss levels. Over and above this basic tariff, a loss surcharge should be levied and the same should be worked out based on the actual losses of a particular area and imposed area wise. It may be mentioned that meters have been installed at nearly all distribution transformers (33 KV in some States and 11 KV in other States) it is thus possible to know accurately the power supplied at the distribution transformers. The energy sold to all the consumers of that area can be aggregated and juxtaposed with the energy supplied to arrive at losses in specified areas and for calculating the applicable loss surcharge for a given area serviced by a distribution transformer. This loss surcharge should be shown separately from the approved tariff in the bills both for transparency as well as consumer education. Such loss surcharge is likely to vary from area to area and, consumers would know clearly what they have to pay for dishonesty or inefficiency of other consumers of their area and indeed of local functionaries of the distribution utility and the State Government. This would understandably be resented by straightforward and honest consumers of high loss areas. Given the level of consumer awareness and over active media, such resentment is likely to bring pressure on concerned authorities and delinquent consumers to take meaningful action for curbing pilferage and bringing down prevailing losses to acceptable levels. Bringing into open the area wise disparity in losses will enable the Regulator and management of the DISCOM to fix responsibility for the same on concerned functionaries and take appropriate remedial and penal action against them. Under the present arrangement, the Regulator is merely penalizing the licensee company for failure to reduce losses. Under the proposed arrangement, the officers and staff responsible for such failure will become accountable and can be penalized without depriving the distribution company of revenue and damaging its fragile financial health.

2.6 Regulators rightly scrutinize and validate the projections for costs and revenue elements that go into tariff determination. This is usually referred to as prudence check. Having done so the Regulator should then not fail to ensure full recovery of the validated costs. In many cases the Regulatory orders have been found wanting

in this regard. Many Regulators have left uncovered gaps to avoid “Tariff Shock”. It is Regulators duty that entire validated costs of the distribution company get recovered and the Tariffs should be determined to ensure this. Regulators have often failed to do so and have resorted to measures like converting the uncovered gap into regulatory assets to be converted into cash in due course again by the Regulator. This accounting jugglery results in serious liquidity problems for the distribution companies, particularly when such measures are resorted to repeatedly. This practice has assumed alarming proportions and in some states the total value of the regulatory assets has gone up to totally unacceptable levels. For example, in the States of Tamil Nadu, West Bengal, and Haryana the Regulators have created regulatory assets of Rs. 7905 Crore (2010-11), Rs. 1569 Crore (2010-11) and Rs. 724 Crore (2009-10) respectively. Such practices resorted to in the name of avoiding tariff shocks need to be stopped forthwith. Such shocks, if any, should be the state government’s concern and not of the Regulator who has the statutory duty to enable the distribution utility to recover its full costs as validated by the Regulator after its prudence checks.

2.7 Some of the actions and inactions of the Regulatory Commissions discussed earlier in this report can be easily attributed to the uncalled for influence exerted by the state government over the Commission. It is being increasingly felt that many State level Regulators have failed to show independence in the discharge of their duties expected of them. Regulators are often more concerned with State Governments’ agenda thereby compromising their statutory functions. Irregular determination of Tariffs, leaving uncovered revenue gaps, camouflaging the same through measures like creation of regulatory assets and laying down unrealistic efficiency improvement targets instead of revising tariffs etc are nothing but examples of Regulatory failure to discharge statutory responsibilities. Such dilution in Regulatory performance can be linked to more and more state governments increasingly placing in these positions individuals willing to follow government’s wishes.

2.7.1 The procedure for selection of the chairman and members of the regulatory commissions is given in the Electricity Act, 2003. For the central electricity regulatory commission the selection committee consist of six members and is headed by Member of Planning Commission in charge of Energy. Some important members of the committee are Chairperson of the Public Enterprises Selection

Board, Secretaries to Government of India in the Ministry/Department of Legal Affairs and Power. The other two members are nominated by the Central Government from amongst heads of Public Financial Institutions and research, technical or management institutions. Against this, the committee for selection of the state regulators, consists of only three members as shown below:

- a) A person who has been a Judge of the High Court -Chairperson
- b) The Chief Secretary of the concerned State -Member
- c) The Chairperson of the Authority or the Chairperson of the Central Commission -Member

2.7.2 To reinstate Regulatory autonomy it is suggested that the selection committee for the State Regulators should be broad based so as to make the selection process fair, objective and independent. To this end it is suggested that the Committee for selecting Chairman and Members of the State Regulatory Commissions should be constituted as given below :-

- (a) A sitting Judge of the High Court of that State nominated by the Chief Justice - Chairperson
- (b) Chairperson of the Central Electricity Regulatory Commission - Member
- (c) Chairperson of Public Service Commission of another State - Member
- (d) Chief Secretary of concerned State - Member

2.7.3 The present practice of individuals working with the state government or in Power companies being appointed as a member or chairman of the State Regulatory Commission is not conducive to independent functioning of these bodies. Appointment as Chairman / Member of the State Regulatory commission should not seem to be reward for services rendered. The present practice of appointing superannuating bureaucrats or technocrats as Chairman / Member of the Regulatory Commission hampers their independence which is essential to their successful functioning as Regulators as it is often in conflict with their earlier actions. Section 85(5) of the Electricity Act 2003 prohibiting such appointments is ignored even when there is obvious conflict of interest in such appointments. This provision is reproduced below:

"Before recommending any person for appointment as the Chairperson or other Member of the State Commission, the Selection Committee shall satisfy itself that

such person does not have any financial or other interest which is likely to affect prejudicially his functions as such Chairperson or Member, as the case may be."

It is therefore suggested that a person who has worked during the preceding five years with the state government or any of its undertakings/organizations, should be ineligible for appointment as a member or chairman of the Commission in the same state.

- 2.7.4 Similarly in order to retain, in the true sense, independence in functioning of the state Regulators, any individual who has functioned as a chairman / member of the State Regulatory Commission should be prohibited for a period of 5 years from taking up any employment with any department, undertaking or organization owned or controlled by the state government or a private entity having direct or indirect stake in the power sector.
- 2.7.5 At the present time regulators do not enjoy financial autonomy and there are instances of regulators being influenced by the State Govts. due to lack of financial independence. In order to overcome this problem a system to secure financial autonomy for the regulators has been devised. This is expected to secure financial autonomy for the regulators.
- 2.8 We visualize that the Regulators would meet their annual expenses from the fees and charges leviable by Regulators. At **Annexure - VII** a system for preparation of budget, maintenance of accounts and audit for Regulators is appended with this report. The annexure provides a basis for securing financial autonomy for the Regulator while ensuring full accountability.
- 2.9. In order to be effective in discharge of their functions Regulators have understandably to be independent of other stakeholders. However independence should not be confused with absence of accountability. The Regulatory regime as created by the Electricity Act, 2003 does not seem to secure accountability. Regulator's errors can no doubt be rectified by the appellate tribunal/higher courts through judicial intervention. However if a Regulator fails to discharge its duties or does not discharge them in objective and impartial manner, he cannot be questioned for such lapses. This has resulted in the Regulators being vested with enormous powers without corresponding accountability. Such an arrangement has tempted individuals to exercise powers in a less than fair manner. It is therefore

suggested that there should be an arrangement for periodically evaluating functioning of the State Regulatory Commissions. For this periodic reports may be required to be sent by the regulators on a prescribed proforma. These reports can be useful inputs for carrying out periodic evaluation. If as a result of such evaluations it is found that a particular Regulator has consistently failed to discharge his statutory responsibilities, such failure should also be made a ground for his removal in addition to those listed in Section 90 (2) of the Electricity Act, 2003. However, to maintain Regulator's independence, the central and state governments should not be directly or indirectly involved in any such exercise. In this context the arrangement made for determining accountability of various Central Government departments as per the Results Framework Documents (RFD) could be considered as a possible option. Under this arrangement task force comprising of independent experts of the subject will be constituted and will scrutinize functioning of Regulatory Commissions to determine whether the Commission has been sincere and effective in discharging its functions as laid down in the Act, Rules, Policies and Regulations framed under various provisions of the Act. To make this work independent of the Central / State Government, the same can be organized and undertaken in the Planning Commission. It is suggested that a Committee headed by Member (Energy), Planning Commission and comprising of Chairman, CERC and one non-government functionary (with a suitable background) may discharge the oversight function. If the outcome of such Performance Audit calls for action against any Regulator, suitable reference will be made to the Chairperson of the Electricity Appellate Tribunal who will take further action in accordance with provisions of the Electricity Act, 2003.

2.9.1 The Electricity Act, 2003 already lays down a procedure for removal of the member/ chairman of the State Regulatory Commission. Without changing the procedure, failure or improper discharge of a statutory function should be made an additional ground for removing a delinquent member / chairman. Performance Audit of the Regulator done in accordance with provisions of the preceding para would be the basis for such removal.

2.10. Distribution Companies shortcomings

2.10.1 Apart from the Regulators the distribution utilities must share major responsibility for their current financial mess. Most of them do not give due importance or seriousness to the regulatory issues. This results in non or delayed submission of

tariff proposals, submission of incomplete proposals without proper supporting data and similar other lapses. Instead of logically explaining and convincing the Regulator the rationale or legitimacy of their claims, many distribution utilities tend to be non serious about the Tariff exercise and then rush to state Governments/Courts resulting in further delays in resolving the disputed issues and avoidable waste of time and money. This tendency is more pronounced in government owned utilities and is detrimental to their own long term interests.

2.10.2 To avoid this, Regulatory issues, particularly the requirements and directions spelt out by the Regulator, need to be appreciated given serious consideration by companies' top management instead of knee jerk reactions and regulator bashing which is easiest to do as it needs no major effort or sacrifices from the licensee. Company's lapses in this regard result in direct revenue loss to it, yet their boards rarely oversee or deliberate upon them. It is suggested that the Board of Directors of distribution utilities whether owned by Government or privately should invariably monitor compliance of directions issued by the Regulator as failure in this regard is detrimental to the utility's own interests.

2.10.3 The distribution utilities need to realize that the regulatory mechanism has been created under law and is there to stay and simply cannot be wished away. Irresponsible or flippant approach to regulatory issues is self defeating and can in the long run cause serious damage to the utility itself. Distribution utilities' managements need to reorient their present attitudes and create requisite environment for this. They also need to create mechanisms to present their claims before the Regulator in manner and form which are convincing.

2.11 State Governments' Role

2.11.1 The agenda for reform of the electricity sector envisages a pivotal role for the state governments. The prevailing situation in most of the states suggests that many of the state governments have actually thwarted functioning of the regulatory mechanism which in turn has contributed substantially to the present mess. Some such actions/inactions on part of state governments are listed below:

2.11.2 One primary reason for the distribution utilities not submitting their tariff proposals in time or in acceptable form is the state governments' political sensitivity to any proposed increase in tariffs. Since most of the distribution utilities are owned and

controlled by State Governments, they are unable to overlook state governments concerns. Such delays result in the retail tariffs remaining unrevised for years together resulting in heavy revenue shortfalls for the distribution utilities.

- 2.11.3** Some state governments have issued directions to the Regulator under section 108 of the Electricity Act requiring that the retail tariffs for all distribution licensees functioning in the state should be uniform. The Regulator's option is to fix tariffs for all such utilities based on either the most efficient one or the least efficient one. If the regulator chooses to adopt the most efficient utility's standards, other utilities face the risk of not recovering their validated expenses. If the Regulator goes by the standards of the least efficient utility, excess revenue accrues to the better run utilities but at the cost of their consumers.
- 2.11.4** Some state governments have used their powers under section 108 to direct the Regulator to reserve the cheapest available power for specified category of consumers while fixing tariffs. This too distorts the tariff determination exercise and results in increasing the incidence of cross subsidy instead of reducing it.
- 2.11.5** One State Government recently prevented the regulator from issuing the tariff order by giving directions U/S 108 of the Act. The State Government's actions in this regard have dragged the whole issue to courts and in turn tariff revision was delayed resulting in avoidable confusion and problems.
- 2.11.6** Using their somewhat loosely defined powers under section 108 of the Electricity Act, 2003, the state governments driven by their own agenda, have in various ways curbed or negated functioning of the Regulatory bodies that they have themselves established. This tendency is dealt with some details by two recent orders passed by the Appellate Tribunal/ High Court. Highlights of these orders are at **Annexures VIII & IX**. Based on such interpretation and the orders passed by various High Courts and Appellate Tribunal, Government of India may draw up and Issue detailed guidelines for use of this particular Section.
- 2.11.7** While paying lip service to the importance and need for preventing power thefts and reducing T&D losses, most of the state governments have not taken any effective steps in this direction. As stated earlier for any effective action in this area the distribution utility needs full and sustained support of the state governments and the local administration. Providing such support has a political cost, which the state governments shy away from.

2.11.8 The Planning Commission can usefully monitor whether the State Government as well as government owned / controlled utilities have been making adequate and sincere efforts for reforming the power sector or have they just been paying lip services to these issues only to become eligible for grant of funds. For this the annual plan discussion can be a useful forum. Power sector reforms in general and functioning and effectiveness of the State Regulatory Commissions in particular should be assigned adequate attention.