CHAPTER - 2

ISSUE-WISE SUMMARY OF OBJECTIONS, TNEB RESPONSE AND COMMISSION RULINGS

2.1 Low Tension tariff

2.1.1 Domestic Categories

Most of the petitions received from the LT categories (LT- IA; IB; IIA; IIB; IIC) focus on the following issues:

- The tariffs should not be increased, as there was a steep increase less than a year ago.
- Monthly Billing should be introduced for domestic consumers, against the present practice of bi-monthly billing.
- Reduction in TNEB's revenue requirements through reduction in T&D Losses, generation and power purchase expenses.
- Quality of service should be improved.
- Reclassification of consumers between categories should be allowed wherever necessary.
- Reduction in the number of consumption slabs.

Several domestic consumers have objected to cross subsidisation and free power to huts, and have indicated that tariffs could be reduced if the cross subsidisation is reduced. Some objectors have suggested that a higher focus and priority for hydro projects could lead to lower tariffs. One objector has cited the prompt payment of dues by the domestic consumers of TNEB as a major strength for the TNEB and has objected to the increase in Tariffs for this group after an increase was effected just a year back. Several objectors have submitted that domestic consumers should not be put through another tariff increase, and have criticised the free supply to huts.

Another issue that has been raised by most of the objectors is the current practice of bi-monthly billing for domestic consumers. The consumers are proposing monthly billing for this consumer category. The main objective in suggesting introduction of monthly billing seems to be the perceived benefits of the slab system of tariffs. The President, Citizens Association for Rights & Duties, Chennai, felt that there would be a heavy burden on middle class consumers due to the increase in domestic tariff and has pleaded for modifying the number of slabs and the applicable rates. The suggested tariffs for the first slab between 0 and 100 units is 90 paise per unit, the second slab between 101 and 300 units at 175 paise per unit, the third slab between 301 and 600 units at 250 paise per unit, the fourth slab for consumption between 601 and 1000 units at 350 paise per unit, and the last slab for consumption in excess of 1000 units at 450 paise per unit.

AB Block Exnora Association has submitted that the proposed tariff increase is very lopsided, with domestic consumers having to pay around 30% more while other consumers do not have such a high increase. They have submitted that the tariff for the domestic consumers has nearly doubled in the last 5 years as compared to the annual inflation rates.

The Secretary, Mylapore Chitrakulam Area Residents Welfare Association, Chennai, has suggested that increase in domestic tariffs should be proportionate to the increase in price indices or the inflationary trend, and should not be more than 5% for a block of two to three years. Meter reading must be done as scheduled so that the consumer gets the benefit of the slab system, and the number of slabs must be rationalised to a two-tier system. The Association has supported the subsidisation of power to religious places and government owned hospitals.

The Tamil Nadu Peoples Consumer Federation has submitted that the current tariff revision proposal of TNEB cannot be accepted until the previous increase has been ratified. They have also submitted that the maximum increase in tariffs have been in the LT-1 (slab 200 to 600 units) category, by Rs. 1/- per unit, thereby affecting the middle class the most.

During the public hearings, a consumer association contended that the consumption level of 25 units for the lowest slab is unrealistic as the minimum usage levels had increased dramatically in the past few years. They have also contended that changing faulty meters is TNEB's responsibility and the consumer should not be penalised for it. Consumers have suggested that a monthly billing cycle should be introduced for domestic consumers, with the possibility of self-assessment and advance payment by consumers.

The Federation of Consumer Organisations, Tamil Nadu and Pondicherry, has objected to the Tariff Proposal because it was not reviewed by the Commission before inviting public comments and therefore they have suggested that the proposal should be rejected. The petition also states that the T&D loss break up has not been provided for each category, and are mainly due to TNEB's inefficiencies and therefore should not be passed on to the consumers. Further, the TNEB should encourage efficient use of energy through Demand Side Management (DSM) to protect the environment and discourage higher consumption. The Federation has contended that unless customer service is improved in areas like metering, no tariff revision should be allowed.

The Commander Works Engineers (Navy), CWE (Air Force) and the CE, Chennai Zone, Army have filed petitions regarding the tariffs applicable to them. According to their petition, the Military Engineering Services (MES) is one of the largest consumers of bulk electric supply, and is a defence organisation ensuring the country's security. They have submitted that defence establishments should not be clubbed with the general consumer categories, and should be charged at rates applicable to schools and institutions. They have further argued that the current tariff category for defence establishments must not be accepted because their activities are not commercial in nature, and that they are involved in the security of the nation. They have also argued that due to operational reasons, the Military Engineering Services have their own transmission and distribution systems, thereby reducing the burden on TNEB. They have therefore requested the Commission to accord Licensee status to them. They have also requested that Maximum Demand charges should not be applicable to the Defence Establishment.

The Tamil Nadu Peoples Consumer Federation has submitted that charging higher tariffs for higher levels of consumption is irrational, and that the middle class consumers will be most affected as their monthly consumption would range between 201 to 600 units.

One consumer has objected to the Tariff increase on the basis that TNEB can reduce its revenue requirements through efficient administration and reducing unnecessary legal expenses and curtailing theft of power. The Pattali Makkal Katchi (PMK) Party has objected to the increase in tariffs for the domestic and industrial sectors. The PMK Party has submitted that free power to huts should continue.

Some objectors have submitted that the TNEB should recover the arrears from the defaulting consumers and there would be no need for tariff increase if the arrears are recovered. Other objectors have submitted that the TNEB should benchmark its performance against international utilities and other private sector utilities in the country, and improve its operational efficiency, which would result in a reduction in costs and hence reduction in the tariffs.

A number of housing and flat Associations have objected to the increase in domestic tariffs. They have also stated that the quality of service is poor and separate meters should be provided for the common water pumping systems within the housing complex. The objective of these multiple meters is to avail of the benefits of the slab system.

The Sri Ramakrishna Seva Sangam has appreciated that there has been no increase proposed in the tariff category for places of worship, but in their petition, they have suggested the implementation of sliding rates similar to LT-IA. Similarly they have also queried the need for a distinction between Chennai metro/Non metro tariffs.

2.1.2 Industrial Categories (LT- IIIA; IIIB; IIIC)

Objections have been filed by a number of individual industrial power consumers and industrial associations. Their objections focus on the following issues:

- The industrial consumers cannot bear any further increase in tariffs due to the poor business environment.
- TNEB should enhance its operational efficiencies to reduce the cost of supply.
- Reduction in cross subsidy.
- Reclassification of certain consumers from one category to another.

The Salem Handloom & Power loom Cloth Manufacturers & Exporters Society has objected to the categorisation of preparatory industries of power loom such as winding, twisting and warping processes under LT Tariff III-A (1) category. . Due to the distressed conditions in the handloom and weaving sector, some objectors have requested to include Winding, Twisting and Warping units attached to power loom units under Tariff III A (2). They have also requested for an enhancement of the permitted load of power looms from 10 HP to 15 HP. They have further submitted that the energy consumption of power looms should be charged at the rate of Rs. 1.40/kWh up to 750 kWh per month without slab system. These views were echoed by a number of individuals and associations during the public hearings.

Saw Mill owners have pleaded that their businesses are suffering from poor economic conditions and any further increase in tariffs would be disastrous. The Tamil Nadu Coir & Coconut Products Manufacturers and Dealers Association, Pollachi has objected to the increase in tariff applicable to small and tiny industries, because the earlier argument that agricultural supply was free and hence the other consumers have to cross-subsidise this category is no longer valid. They have also contended that their industry is passing through a difficult phase, and that they cannot bear any further tariff increases.

Ranipet SIDCO Entrepreneurs Association, Tamil Nadu Small & Tiny Industries Association, Small Salt Manufacturers' Association and several other industrial consumer Associations have objected to the tariff increase for SSI units and have claimed that the tariff increase has been necessitated due to high T&D losses, improper implementation of the free Hut Service scheme, and abnormally high administrative expenditure in TNEB. They have contended that power is a significant cost input in their manufacturing process and that tariffs must reflect the Distribution costs incurred in supplying electricity to them.

An Information Technology company has requested that rented premises used for computer education, with the service connection in the name of the owner, should be included in LT III-C.

Industrial Associations in the Coimbatore region have objected to the tariff increase and have stated that the tariff revision has been necessitated because of the high T&D Losses, GoTN not paying the subsidy due for giving free electricity to agriculture, and TNEB's organisational inefficiencies. The Associations have also requested for concessional tariffs for the tiny sector.

The Banian Cloth Manufacturers Association, Tirupur has stated that power cost comprises about 35% of the production cost and is a critical component of the production process. Therefore, any increase in the tariffs would worsen the situation. They have requested that their industries should be classified under L.T. Tariff III (A) applicable for cottage industry.

The Tirupur Export Knitwear Industrial Complex has appealed to the Commission that since they are an Export Orientated industrial complex, they should be treated preferentially and be given a lower tariff. The Complex has referred to a recent initiative of the GoI to encourage captive power plants in such export clusters. The Broiler Co-ordination Committee has submitted that they are an agriculture-oriented business and therefore should be reclassified from LT-IIIB to LT-IIIA.

Mr. D. Kumaravelu, Retired CE, TNEB, and SAC Member, said during the SAC meeting that tiny industries and power looms should be clubbed, and the 15% lighting restriction on industrial connections should be removed, so that the LT industrial category can be clubbed to include the IT sector.

2.1.3 Agriculture (LT- IV)

Several objectors from the agricultural community have pleaded for maintaining status quo as regards agricultural tariffs. On the other hand, some objectors have supported the move to charge tariffs to the agriculture sector and have suggested that the TNEB should focus on the quality and quantity of supply and the quality of customer service to the agricultural consumers. Another agriculturist has supported tariff for agriculture but has stated that tariffs must be determined on the basis of land holdings and ground water availability. Further, agricultural tariffs must be accompanied by better quality and quantity of power supply.

The other issues that were raised in most objections are:

- Electricity tariffs for agriculture should be linked to an increase in the Minimum Support Price for agriculture produce
- General market conditions for most agriculture produce
- National/State food security
- Deteriorating Ground and Surface Water Conditions
- Social and environmental issues

The Veera Vanniyar Peravai has objected to imposition of tariffs for agriculture on the basis that free electricity for agriculture was secured after 12 years of efforts, and that the provision of free electricity is an investment by the State in Agriculture. They have also contended that further increase in agriculture costs would lead to more unemployment.

The Federation of Tamil Nadu Agriculturist Association has stated that the removal of free power for agriculture would lead to higher commodity prices and continue the increasing trend of unemployment in agriculture. They have also stated that returns from agriculture production will not be sufficient to pay the tariffs, and that free electricity should be provided to agriculture till there is price parity for agriculture produce.

The Federation of Consumer Organisations, Tamil Nadu and Pondicherry has suggested that free power for agriculture should continue because most of the irrigation is done using ground water rather than surface water. Several objectors have stated that though TNEB incurs a huge loss due to free supply to farm sector, the linkage between power supply and increase in farm production should not be ignored. The Dy. General Secretary, INC, Dharmapuri, has pleaded that the agricultural tariff should be determined at Rs. 300 per HP per year against TNEB's proposed Rs. 600 per HP per year, due to the poor market conditions.

Many political parties have objected to the proposed tariff for the agriculture sector and some have stated that the high collection efficiency shown by TNEB is because most of the non-collection is shown as agriculture consumption and free hut scheme usage. One party has claimed that the State Government has stated that it spends about 94% of the budget as salaries to Government employees, and as the proposed revenue generation from Agriculture would be only Rs. 400 crores, the Government should therefore find some other alternative means of financing the agriculture electricity costs.

Another argument put forth by many objectors on the proposed tariffs for agriculture is that unlike other subsidies from Government of India and State Government to the agriculture sector, this is the only subsidy that goes to the farmer without any intermediate stages and with no slip between the cup and the lip. Hence the free supply to agriculture should be retained.

The TNEB Workers Progressive Union has submitted that the Low tension Supply tariff must not be increased, and that the agriculturists should continue to receive free power, with the GoTN meeting the revenue loss.

The Tamil Nadu Cauvery Neerpasana Vilaiporulgal Association has objected to the proposed tariff for agriculture and has stated that while the agricultural subsidy in the Western countries is between 20 to 23%, it is only 2.3 to 3% in India, and therefore the free power for agriculture should continue.

The Pollachi Taluk Kongu Velalar Sangam, in their objection, has stated that a number of sectors and groups are enjoying concessions from the Government, for instance the food subsidy through the Food Corporation of India, subsidised liquefied petroleum gas, etc. They also state that Industries are also getting several concessions by way of tax holidays, concessional depreciation, and low rate of interest. Therefore, until all concessions are totally stopped, it is neither fair nor equitable to withdraw free power to farmers.

During the hearings, several Associations and individuals submitted that there was a promissory estopell in providing free power to agriculture, as this has been in practice for the past 12 years. Therefore they contend that neither the Government nor the TNEB can suddenly withdraw this facility. They also contend that on the basis of this promissory estopell, farmers had invested large sums in bore wells, pumps and other irrigation equipment.

The Pattali Makkal Katchi has stated that free power for agriculture was obtained after a number of protests, representations and submissions. The Party has mentioned about the failure of the rains and the depleting ground water coupled with poor farm prices, and has submitted that the farmers should not be burdened further. The Party has submitted that free electricity is the only subsidy to this sector, and if electricity is charged, it will result in food shortages. The PMK Party has also mentioned that the Government had mentioned in a debate in the last budget session that free power to agriculture would continue. The Party has also mentioned that the State Government is responsible for power tariffs and cannot pass on its responsibility to another organisation.

Several Agriculture Produce Councils have objected to the proposed agricultural tariff. The petitions have stated that due to the water problems and the dependence on pumping water for irrigation, it would be impossible for agriculturists to pay for power under the current price structure for their products. They have also contended that the withdrawal of free power would lead to ecological damages. They have mentioned that the cost implications of fixing meters at the farms would increase TNEB's losses.

The Indian Farm Workers Party has contended that despite the provision of free power till date by the Government, the farmers remain poor. The objector has contended that the situation would worsen if the electricity is charged to the agriculture sector.

Another party representing the farmers has objected to the agricultural tariff on the basis that the Government has invested huge amounts of money for surface water irrigation through canals, while areas not served by these canals had to draw water through pumps from wells and borewells. Therefore, the Government must support areas where there are no canal systems with free power supply. The objectors have compared the cost of production and market price for several agriculture produce to strengthen their arguments.

The Thanjavur, Nagapattinam, and Thiruvarur District Farmers Association has objected to the tariff revision, stating that the only subsidy that reaches the farmer directly is free power and that this must not be withdrawn, rather, it should be increased.

They have compared the water position in Tamil Nadu to that of Rajasthan, and state that pumping water is critical for continuing agriculture. They have provided an analysis of the ground water availability in their region. They have also mentioned that it is the duty of the Government to provide water for irrigation and therefore, free power must be provided to farmers when they have procured their own equipment for irrigation. The objector has also stated that the Central Government has been reducing the subsidy on all agricultural inputs and therefore the removal of free power will affect the sustainability of agriculture.

A Farmers Front in Thanjavur has stated that as TNEB is a public sector organisation run by the Government of Tamil Nadu it should provide free power to farmers to further the Government's social agenda and must get full reimbursement from the Government for this loss. The MDMK Party has objected to power tariffs for the agriculture sector, as this was the only direct subsidy to that sector.

During the public hearings, several farmers and agriculture Associations have submitted that the removal of free power in Punjab could not be used as an example to remove free power in Tamil Nadu. The main reason for this contention was that there are perennial rivers flowing in Punjab, while there are none in Tamil Nadu. They also contend that groundwater is available at a depth of around 50-70 feet in Punjab, while it is available only at a depth of 200-1000 feet in Tamil Nadu. The DMK Farmers Wing had submitted that the State Government had assessed a loss of Rs. 2000 crore due to the non-availability of water in the Cauvery delta region, consisting of 8 lakh hectares. On this basis, they have contended that the termination of free power, which is used by around 13 lakh hectares, would lead to a loss of Rs. 5000 crore.

The Tamil Nadu Agriculture Energy Consumer Association submitted during the public hearings that the World Trade Organisation (WTO) has provided timeframe by which removal of agricultural subsidies is mandatory, and hence the State Government should continue with free power as a subsidy to Agriculture for some more time. The Farm and Workers Party submitted during the hearings that the removal of free power would lead to an increase in food prices thereby increasing the Government of Tamil Nadu's subsidy for the food grains.

A number of agriculturists have also submitted that TNEB has collected large amount of deposits from them through the self finance scheme, wherein agriculturists had to make payments for the equipment. They have contended that though these amounts would generate interest income, this has not been shown in TNEB's filing with the Commission. They have also requested for the removal of certain covenants in the agreements they have signed with TNEB while availing power through the self- finance scheme.

The Arrur Subramaniam Siva Cooperative Sugar Cane Processing and Sugar Cane Association has objected to tariffs for agriculture sector on the basis that agriculturists do not have any control over the price of their produce. They contend that they are responsible for the increase in farm production and that this cannot be continued without free power. The Association has submitted that unless there is price parity in agriculture there should not be any tariff for power.

During the public hearings an agriculturist had suggested that, due to the linkages of Hydro Power generation to irrigation, and its low cost, it should be used exclusively for providing free power to the Agriculture sector. Several farmers and farmer association had also submitted that the removal of free power would lead to an increase in the non performing assets of the Banks due to non repayment of loans, and a number of social problems, like social unrest, theft, violence, etc.

A representative of the Farmers Party submitted during the public hearings that TNEB should rationalise the number of service connections in the farms. This, they contend, would lead to reduction in T&D losses and other administrative processes. Other suggestions included the segregation of all agriculture consumers into two categories, namely, small and food crop farmers and big and cash crop farmers. One objector has mentioned that half hearted metering would be detrimental to TNEB and would back fire. Some other objectors mentioned that no distinction is to be made between small and large farmers, since the cost of cultivation per acre is the same.

Mr. T. M. Varadaraj, an agriculturist and SAC Member, said during the SAC meeting that the proposed tariff of Rs. 600 per HP per annum is very high and a tariff of Rs. 100 per HP per annum may be affordable. Mr. G. N. Periyarsamy, another agriculturist and SAC Member, said that the tariff increase should be effected after Pongal. He suggested that the tariff rates for categories other than agriculture should be raised to recover additional funds, and the benefit should be passed on to the agricultural category, through reduced tariffs. He proposed that the metering should not be done for the agricultural category, and agricultural tariff should be levied on the basis of the connected load, viz. Rs. 100 per HP per annum for upto 3 HP, Rs. 150 per HP per annum for upto 5 HP, Rs. 200 per HP per annum for upto 10 HP, and Rs. 250 per HP per annum for above 10 HP.

Mr. Sundaram, agriculturist and SAC Member, said during the SAC meeting that the expenditure required to pump water from greater depths using compressors is very high and the agriculturist cannot afford to pay huge electricity charges with double stage pumping, etc. Further, metering for agricultural consumption is not advisable. He added that separate tariffs could be determined for services with compressor motor. He suggested that agricultural connections should be classified based on the connected load and farmers having less than 5 HP connected load should be given free supply.

Mr. Venu Srinivasan, said during the SAC meeting that overdrawal of water resources beyond certain limits would have serious repercussions, and should not be taken lightly. He suggested that water saving technologies such as drip irrigation should be used for optimal use of scarce water resources, which could be subsidised considerably. He added that in some cases, agricultural pumpset connections are being misused for sale of water.

2.1.4 Commercial and Others (LT- V)

- Associations representing traders have objected to the proposed increase in tariff for the commercial category. There are also a number of objections to the classification of their entities within the various sub categories.

A number of Small Traders Associations have submitted that the proposed increase in Commercial tariffs is unwarranted, as they cannot afford another increase in tariffs after the hike in tariffs last year. Some small shop (petty shop) owners have objected to their being included under the commercial category and have requested for the inclusion of all tiny shops in the LT-I (A) category.

The Secretary and Correspondent of a non-profit organisation has contended that his institution and other similar organisations are involved in the support and development of destitute and disabled children. He has objected to any further increase in the tariff for this category and has suggested that such consumers should be excluded from the increase because this would make the continuation of services by their organisations infeasible.

The Tamil Nadu Petroleum Dealers Association, Chennai has pleaded for the re-classification of their category from Commercial Tariff LT V to LT III (B) tariff category, as most of their activities are industrial in nature.

The Indian Medical Association, Salem, has stated that there are over 85000 consumers who are being billed at commercial rate have actually Consulting Chambers and Clinics cum residences, and that there are many cases where it is for charitable purposes or at a concessional rate. Therefore, the Association has requested that it should be categorised under LT I-A, as Government hospitals and Cinema Theatres are classified under LT II-B, while Hospitals and Nursing Homes have been categorised under LT V. As the service provided by Hospitals and Nursing Homes is same, the objector has requested that these consumers should also be classified under LT II-B or a separate category must be created.

The above views have been echoed by several hospitals and doctors. The Kuppuswamy Naidu Charity Fund has objected to charitable hospitals being clubbed with commercial organisations, rather than being treated at par with hospitals run by Government/panchayats, etc. The objectors have stated that, if required, the charitable organisations could submit proof of the Income Tax relief provided by GoI.

The Chennai and Tamil Nadu Hotels Association has submitted that even though they have been classified as Industrial Category by the Department of Tourism at the Central and State Levels, they are being billed under the commercial category by TNEB. They have appealed to the Commission to classify them under Industrial category.

A consumer from Coimbatore has submitted that TNEB has suppressed a very vital fact from the purview of the Commission , namely total cost of supply of energy over a period of ten years and the realisation efforts taken for arrears. One glaring and crystal example is Madras Aluminium Company, which owes several crores . No effort was taken to recover and realise this and ultimately the proceeding was withdrawn without any legal jurisdiction.

Suggestions have also been received that commercial category should be clubbed with Industry and both, (commercial and industry) must be charged the same tariff.

2.1.5 TNEB's Response to the issues raised on each category

In its response, TNEB has submitted that its poor financial position is the main reason for the tariff revision proposal, and that TNEB's proposed revision in tariffs is in accordance with Section 59 of Electricity Supply Act, 1948. Section 59 of the Electricity Supply Act, 1948 states that the TNEB needs to set its tariffs in such a way that it can recover a minimum 3% return on its Net Fixed Assets in any year of account over and above all expenses chargeable to revenue such as the operating, maintenance and management expenses, taxes (if any) on income and profits, depreciation and interest payable in that year. The expenses chargeable to revenue changes every year due to changes in input prices, inflation, amount of power purchase, etc. Consequently, to cover all such costs including the minimum return, tariff rates are required to be modified every year so as to achieve financial viability.

TNEB has stated that since the last revision, it has witnessed an increase in its operational costs, on account of the increase in sales volume as well as the inflationary conditions, by about 12% while the tariffs continue to remain the same. Hence, the proposal for revision in tariffs is necessary to ensure its financial viability.

TNEB has also stated that benchmarking its existing or proposed tariffs with those of any utilities operating in other countries, either under public or private ownership at present, would not be proper because of the vast difference in the environment in which such utilities operate. Further, it has submitted, that it would be illogical to compare the efficiency parameters or tariffs of TNEB with any other state utility in the country as there exists considerable difference between these utilities in terms of hydro-thermal mix, operating cost composition, composition of consumers, area of coverage, etc.

In the case of agricultural consumers, TNEB has submitted that it is likely to incur a loss of Rs 2700 Cr even after the nominal tariff proposed for them is implemented. The TNEB has submitted that in view of the poor State finances, the State Government would be unable to provide adequate financial subsidy to the TNEB. Under these circumstances, TNEB is of the opinion that it has no other option but to charge a nominal tariff from the hitherto free supply categories. Chairman, TNEB, said during the SAC meeting that no State in India has implemented agricultural tariff based on depth of water availability or acreage of land holding.

Regarding re-classification of consumers from one category to another, TNEB has refrained from commenting and has stated that it is the Commission’s domain. On its part, TNEB is attempting to rationalise the tariff structure and remove the imperfections in a progressive manner. Their attempt is to bring the tariff structure closer to the intent of section 29(3) of ERC Act 1998.

TNEB has also submitted that merging of the categories/slabs or creation of new categories would require extensive analysis of the impact on the consumer as well as its revenue. TNEB would gradually consider suggestions on reduction of categories in subsequent tariff filings.

The TNEB has also submitted that, as far as recovery of arrears is concerned, all effective steps in exercise of the powers conferred on it under Section 24 of the Indian Electricity Act, 1910 are being taken. The growth in arrears has been arrested in the year 2000-01 while the arrears with respect to those consumer categories where TNEB has a free hand in effecting disconnections has actually fallen in the year 2000-01. TNEB also enjoys the provisions of the RR&RD Act wherein it is empowered to collect arrears of current consumption charges under the Act at par with the land revenue recovery.

2.1.6 Commission's Ruling on issues raised under the various category of services

a) Legal Issues

Some of the legal issues raised during the hearings are discussed below:

- Regarding the contention of the Tamil Nadu Peoples Federation that the current tariff revision cannot be accepted until the previous increase has been ratified, it is to be noted that the Commission, while processing the review petitions filed before the Commission against the GO Ms 95 has held that the Commission cannot review the previous tariff increase. The division bench of the High Court has upheld this decision.

- Regarding the objection by FEDCOT that the revision proposal should be rejected since the same was not reviewed by the Commission before inviting public comments, the Commission opines that there is no legal need for such a review before inviting public opinion.

- Regarding the 'promissory estoppel' in providing free supply to agriculturists, the Commission has not made any such promises to anybody so as to be bound by the doctrine of promissory estoppel. Commission is bound only by the provisions of ERC Act in fixing the tariff.

b) Other issues

The Commission's approach to tariff determination has been detailed in the Commission's Tariff Philosophy along with the category-wise tariffs determined by the Commission. The Commission is bound by the provisions of the ERC Act, 1998, which stipulates that the cross-subsidy should be reduced gradually and that the tariffs for all consumer categories should reflect the cost of supply over a period of time. As per the ERC Act, no consumer category can be given free electricity, and if the State Government desires to subsidise certain categories to fulfil social objectives, then the State Government has to compensate the TNEB through payment of direct subsidies to make up for the revenue loss. The TNEB has to operate as a commercial entity to ensure long-term viability of the electricity sector in the State, which is very essential. The consumers will appreciate that unless the TNEB is able to recover its expenses through levy of appropriate tariffs, it will not be able to sustain itself and the availability and reliability of power supply to the consumers would be affected.

The Commission is in agreement with the TNEB's reading of the Electricity (Supply) Act, 1948, which allows the TNEB to seek revision in the tariffs once every year to meet its expenses as well as earn the minimum stipulated return of 3% on the Net Fixed Assets of the TNEB. In other States too, the Regulatory Commissions have revised the tariffs once every year. The Commission is of the view that another tariff process for determination of tariffs for FY04 is not desirable, and will not serve any purpose as all the issues and the opinions have already been taken on record. The Commission has hence determined tariffs for the period from 16.3.2003 to 31.3.2004. To avoid complications of mismatch between the financial accounting year and the effective period of tariff revision, the Commission directs the TNEB to submit the Tariff Revision proposal for FY05 to the Commission before December 31, 2003, in case it desires to revise tariffs for FY05.

The Commission is of the opinion that the existing tariff structure of TNEB should be rationalised. The objectives of rationalisation of the existing tariff structure would be to reduce the number of slabs for each consumer category , higher tariff for LT category of consumers as compared to HT category, as the LT cost of supply is higher, and tariff rates for all categories of consumers progressively reflecting the cost of supply. The Commission also believes that the revision of tariff rates should not cause tariff shock to any group of consumers.

The Commission is of the view that no consumer should be charged 50% more or less than the cost of supply and the Commission will endeavour to achieve this goal in a period of three to four years. For categories such as agricultural and huts that are currently getting free supply, the time period for achieving this target will have to be longer, as the gap to be bridged to achieve even 50% of cost of supply is much higher. Currently at lower consumption levels in respect of domestic, tiny industries and powerloom consumers the tariff rates are below 50% of the cost of supply. Likewise, commercial and temporary supply category are paying more than 50% above the cost of supply. These rates would be adjusted accordingly in a phased manner within a period of three to four years.

For huts and agricultural services, all services should be metered. The Commission is of the view that it will take three to five years to complete hundred percent metering and to streamline meter reading, collection and disconnection mechanism. To increase the rate to 50% of cost of supply for these two categories it would take a longer period. The Commission would review the policy at the end of three years.

Contrary to popular belief, the domestic category is also subsidised substantially, and the average realisation from domestic category amounts to only 58% of the average Cost of Supply. The Commission has initiated the process of tariff reform and the domestic tariffs will increase over a period of time. Consequently, the increase in tariffs for domestic category is bound to be higher than that for subsidising categories. The Commission has rationalised the number of slabs in the domestic category with the objective of reducing the inter-class cross-subsidy, such that the revenue requirement is met and the consumers are not subject to any tariff shock.

The Commission has carefully considered the consumers' request for introducing monthly billing for domestic category, and has compared the prevalent practice in other States also. All over the country, the domestic category is billed on a bi-monthly basis. The domestic category comprises the largest portion of the consumer base for all Utilities in the country, and implementation of monthly billing of all domestic consumers will add to the costs of the TNEB. The rationale behind the request for implementation of a monthly billing cycle seems to be to avail of the benefits of the slab system of billing. The Commission would like to inform the consumers that the existing tariff structure passes on the benefit of the slab system to all domestic consumers, irrespective of the billing cycle. For instance, the lowest slab with tariffs of 85 paise/kWh is applicable for the first 25 units of monthly consumption and for the first 50 units in case of bi-monthly consumption. The slabs for higher consumption levels have also been defined along similar lines.

A considerable number of senior citizens have pleaded before the Commission that payment of consumption bills at the revenue collection centres is itself an ordeal and one has to experience it to appreciate the problem. It was painfully commented that TNEB lags behind in computerization of the billing and arranging collections through banks and other means. Taking all the above into consideration, TNEB is directed to come out with a proposal within the next three months to introduce computerised LT billing at all Municipal Corporations (Urban Centres) within one year.

The Commission accepts in principle that the consumption of the common ancillaries such as water pumping systems within housing complexes should be divided by the number of dwelling units. However, a decision on this matter is deferred till the next tariff exercise.

The Commission agrees with the view of the defence establishment and other bulk consumers taking supply at single point for onward distribution to residential consumers, that their tariffs should be lower as the TNEB incurs a lower cost to supply to these consumers. The Commission is of the view that such bulk consumers taking bulk supply at single point, including defence establishments, Railway colonies, plantation workers' quarters' and residential complexes should be encouraged as the TNEB's losses will reduce and the TNEB is also saved of the metering, billing and collection expenditure for the individual consumers.

The Commission has also removed the differential tariffs applicable for metropolitan and non-metropolitan areas as there is not much merit in the TNEB's argument that the metropolitan areas have underground cables which improves the reliability of supply, and the additional 10 paise/kWh is charged to recover the additional cost of interest and depreciation on the costlier underground cables. The TNEB has subsequently clarified that only the Chennai Corporation area has underground cables and overhead lines serve the metropolitan areas outside the Chennai Corporation limit.

Sale of electricity cannot be compared to sale of other goods and services where bulk discounts are offered for higher consumption levels. Higher consumption requires higher generation/purchase of power from costlier sources, and hence there is no rationale for allowing incentive for higher consumption. However, higher consumption levels need not be unduly penalized.

The Commission agrees that the preparatory industries such as winding, twisting and warping processes of power loom sector should also be categorised under the tariff as applicable to power looms .

Commission does not find merit / justification in the following demands :

- The request to enhance the limit of 10 HP to 15 HP under the tiny industry category
- The request of Tirupur Banian Cloth Manufactures Association, Export Knitwear Industries Complex and The Broiler Co-Ordination Committee for changing their tariff category from III(B) to III (A)
- Including the IT training institutes occupying rented premises to come under the LT tariff III(C)
- The request by Tamil Nadu Petroleum Dealers Association and Chennai & Tamil Nadu Hotels Association to categorise them from Commercial to Industrial Consumers.

The Commission has favourably considered the request of small medical clinics and dispensaries attached to residences that they should be charged at domestic rates, as this is in line with the Supreme Court ruling in this regard. However, bigger clinics with in-patient beds and nursing homes having surgical equipment will continue to be charged at rates applicable to the commercial category. Similarly, other professionals such as Lawyers, Chartered Accountants, Goldsmiths who are providing professional services in a single room in their residential premises, will henceforth be charged at domestic tariffs.

As regards the objection from Kuppusamy Naidu Charitable Trust for clubbing charitable hospitals in commercial category, it needs to be noted that once the tariff rationalisation is done and cross subsidies are removed, there will not be much disparity and hence such cases may be kept in abeyance for the next two years.

c) Specific issues on Agricultural Tariff

The Commission appreciates the points expressed by the agriculturists and various associations with respect to free supply to agricultural sector and respects their views. However, the Commission has to comply with the provisions of the ERC Act, which stipulates that the tariffs should progressively reflect the cost of supply, Moreover, the TNEB has to operate on commercial principles. The social objectives of food security, support price and providing employment to the population fall under the domain of the State Government.

Several consumers have submitted that the agricultural consumption should not be charged as the water levels had gone down substantially and the farmers would not be able to pay the electricity bills. The Commission is of the view that unless electricity is charged for, it will be difficult to inculcate the sense of conservation of scarce resources

and the consumers will not manage and control their consumption. Uncontrolled consumption of electricity has contributed to the lowering of the water table and to avoid further deterioration in the water levels, the electricity consumption has to be controlled, to ensure that future generations are assured of their share of ground water.

The Commission is of the opinion that the objection that consumption of electricity by agricultural consumers should not be charged unless the Minimum Support Price for agricultural commodities is increased is not justifiable, as the MSP is applicable all over the country, but the electricity supply is not free in any other State, including Punjab, which has recently abolished the free supply of electricity to agricultural consumers.

The Commission is of the opinion that the objection regarding equality between farmers who have access to canal irrigation and the farmers who have to access ground water from great depths falls within the State Government's domain. However, the Commission appreciates the view that the small farmer will be unable to pay substantial tariffs immediately, and the tariff increase has to be gradual. The agricultural consumers should appreciate that the actual cost of supply to the agricultural sector, (considering the average cost of supply of Rs. 3.07 per kWh in FY04) is Rs. 2839 crore, for an estimated annual consumption of 9247 MU. If the total cost were to be recovered from agricultural consumers, the tariff will have to be Rs. 3269 per HP per year. As against this, the TNEB had proposed a tariff of Rs. 600 per HP per year. Government of Tamil Nadu , in the meantime has informed in their written submission before the Commission that the GoTN will not be in a position to provide any subsidy to the TNEB during FY03-04. Over and above, the state is undergoing unprecedented drought . Considering all the above, the Commission has decided to introduce tariff for agriculture at the rate of Rs. 250 per HP per Annum for unmetered services. Alternatively, for metered services, the rate shall be 20 paise per unit . In order to incentivise the consumers to opt for metered services, a monthly minimum for metered services has been fixed at Rs.25 .

The Commission looked into the contention of a number of agriculturists that TNEB has collected large amounts of deposits under self finance schemes and the interest generated by these deposits have not been shown in TNEB's filings. The Commission is convinced that these amounts are not deposits but collected for the capital expenditure incurred to provide the service connection. These receipts are disclosed in the accounts of TNEB as consumers contribution towards cost of capital assets.

The Commission does not find merit in the argument that the hydel power being the cheapest should be allocated to agricultural consumption, as the generation and power purchase from various sources are pooled and supplied to TNEB's consumers. Further, the quantum of hydel generation is insufficient to meet the requirements of the agricultural community as on date. In future too, the prospects for increase in hydel generation appear to be diminishing, whereas the agricultural consumption is bound to increase every year.

Since some of the issues raised by the Agriculturists (even though they do not fall under the jurisdiction of the Commission) cannot be ignored, Commission directs TNEB to forward a copy of this tariff order to the concerned departments of Government and highlight the relevant issues.

d) Issues on Arrears and Collection Efficiency:

The TNEB has submitted that the total Revenue arrears as on 31.3.2001 and 31.03.2002 are Rs.481.43 Cr. and Rs. 640.66 Cr. respectively as detailed below.

Sl No.	Category of Consumer	Arrears (Rs. In Cr.)	
		As on 31.3.2001	31.3.2002
I	Live Services		
1	Village Panchayats	60.04	94.13
2	Town Panchayats	4.42	7.29
3	Municipalities	7.24	12.70
4	Municipal Corporation	5.52	6.42
5	Government Services	5.99	7.55
6	Police Department	3.01	3.48
7	Agricultural services	1.87	1.87
8	Others involved in court cases	36.58	35.10
9	Pondicherry Government	0	44.66
II	Arrears from permanently dismantled services	49.37	59.64
III	Dues from M/S MALCO involved in an appeal filed by the TNEB before the Division bench of the High Court of judicature at Chennai (307.39 Crs.) and dues towards generation Tax (60 Crs) for which stay obtained.	307.39	367.82
TOTAL		**481.43**	**640.66**

The TNEB has submitted that it has healthy collection levels. In the ARR Format F 7 , the TNEB has submitted that the percentage of Revenue realized to Revenue billed in FY 01 –02 was 97.99% .Thus the collection efficiency has been calculated as a percentage of amount actually realized during the year on the amount billed during the year . However the collection efficiency needs to be evaluated keeping in view the total outstanding amount (amount receivable during the year) (i.e.) including previous years arrears also.

The collection efficiency as a percentage of amounts realized on the amount receivable and also on the amount billed in the last 4 years is summarized below.

(Rs. in Crore)

Sl.No	Details	1998-99	1999-00	2000-01	2001-02
1	Net receivables at the beginning of the year (Excluding unbilled revenue)	536.77	792.56	820.14	853.1
2	Sales during the Year	5769.99	6559.69	7674.75	8324.92
3	Receivables at the end of the Year (Excluding unbilled revenue)	792.56	820.14	853.1	1040.81
4	Collection during the year	5514.2	6532.11	7641.79	8137.21
5	Collection efficiency-Percentage of amount realized on the amount receivable.	87.43	88.85	89.96	88.65
6	Collection efficiency-Percentage of amount realized on the amount billed.	95.57	99.58	99.57	97.74

The TNEB is directed to improve the collection efficiency level to more than 95% taking into account the arrears also in the next year and to achieve 100% in three years.

The arrears outstanding at the end of the years 1999-2000 to 2001-02 are compared with the receivables at the end of these years as detailed below..

Year	Receivables at the end of the year (Rs. Cr.) (Excluding unbilled revenue as per B / S)	Arrears as reported at the end of the Year (Rs. Cr.)
1999-2000	820.14	468.56
2000-01	853.10	481.42
2001-02	1040.81	640.67

The receivables and arrears at the end of each year is increasing year after year. Action is to be initiated to arrest this trend and recovery proceedings are to be tightened.

The arrears of current consumption charges outstanding from Local Bodies have increased by more than 58% during 01-02 . The current consumption charges arrears from the Local bodies as on 31.10.02 was Rs.187.03 Crs. The TNEB is directed to approach the Government to realize the arrears from the local bodies and other Government departments .

The assistance of the Government of Tamil Nadu may be availed to implement the provisions of RR&RD Act effectively and realize the dues from the disconnected services.

Whereever the dues are identified as non recoverable and to be treated as bad debts such dues may be adjusted against the provisions made therefor.

2.2 High Tension Tariff

2.2.1 Major issues raised on HT Categories

Objections have been received from consumers of all HT categories except categories where no increase in Tariffs has been proposed such as Places of Public Worship, Religious Mutts, etc. (HT -IIB). The State of Pondicherry has filed a detailed objection, which is discussed separately.

The main issues raised by the HT consumers and Associations include the following:

- Increasing trend of cross subsidisation by HT consumers
- High Demand Charges
- No incentive for usage of power during non-peak hours
- No incentive for maintaining a high power factor
- Poor quality of power
- Interest on Security Deposit

The Confederation of Indian Industry (CII), Southern Region, in its objection has described the economic and competitive environment in India and has suggested that the Commission should not increase industrial power tariffs, as any increase will severely affect the competitiveness of the industry in Tamil Nadu. It has also appealed for a directive to TNEB to reduce its operating costs and improve its efficiency. It has suggested that specific commitments must be obtained from TNEB on its plans and strategies for the next three years to reduce the operating costs by a minimum of 5 % every year.

The Tamil Nadu Roller Flour Mills Association has objected to the increase in Industrial tariff, and the high level of cross subsidisation. The Association has stated that the Roller Flour Milling Industry is yet to recover from the impact of recent hikes in Electrical Inspection Fees, Peak Hour Charges, Maximum Demand Charges and Electricity Sales Tax. They have also calculated the additional burden as Rs.180 lakh per annum.

The Chennai City Film Exhibitors Association and the Tamil Nadu Film Exhibitors Association have stated that their industry is facing a number of problems and is on the verge of closure and that further increase in tariffs will lead to more difficulties and reduction in air conditioning, thereby affecting public health. They also mention that the power consumed by them is negligible and the tariff increase will not have any significant impact on TNEB’s finances. In their submission, the Associations have stated that the existing tariffs are already in excess of TNEB's cost of generation. They have prayed for the exemption of the film exhibitors from the proposed tariff increases.

The Tamil Nadu Pollution Control Board has stated that Common Effluent Treatment Plants (CETPs) developed for exclusive use by an industry (such as tanning) is being charged as commercial (HT-III), even though it is for industrial purposes. Therefore, the petitioner requests that CETPs should be included in the Industrial tariff categories. The All India Skin and Hide Tanners and Merchants Association has also appealed to the Commission to revise the tariff for CETPs by treating them as industrial category under HT-IA.

M/s Prathibha Engineering Industries Private Limited has objected to the non-payment of interest on security deposits by the TNEB and has submitted that the demand charges are too high. The objector has also requested for reduction in cross subsidies and a constant tariff for the next ten years.

A number of Cement manufacturing companies in Tamil Nadu, including Madras Cements Ltd. have objected to the minimum demand being charged when no power is supplied and captive power is being used.

The Madras Steel Re-rollers Association has pleaded that electricity is one of the main raw materials, and constitutes around 40 to 50% of their cost of production, and the increase in HT Industrial category under Tariff I-A will render them unable to compete with manufacturers in other States. The Association has also mentioned that the increase in tariffs has led to the closure/shifting of a number of units to other States. They have suggested the creation of a separate tariff category for such consumers. Other issues raised by them include cross subsidisation and free power to agriculture.

The plantation industry has submitted to the Commission that they should be included in the LT category, as opposed to the current HT category, because of their agricultural orientation.

The Tamil Nadu Paper Mills Association has objected to the clubbing of Temporary supply with Lavish Illumination. They submit that supplies to Industries during the construction period can be given under commercial tariff and thereafter it could be withdrawn or modified into regular supply.

GA Trust which is managing a place of worship and allied charitable activities have represented that they were having a number of LT domestic supply within their campus and they have recently switched over to 33 kV HT supply with a considerable investment and with the expectation that major savings will result in opting for HT supply under Place of Public Worship and also improvement in the quality of supply. Even though they have produced sufficient documentary evidence to prove that they have no commercial activity and that it is a charitable trust managing a place of public worship, they have been categorised under commercial and others and their total consumption bill has tripled.

Many HT consumers have cited comparative tariffs in other States and countries, and have specifically cited the State of Pondicherry where the tariffs are much lower. They have submitted that they cannot face the competition of manufacturers from Pondicherry who pay lower tariffs. The Cutting Tool Manufacturers Association has appealed for retaining the current HT Tariff. M/s Brakes India Ltd.submitted during the public hearings that the cost of power for their foundry division was 24% of the total production costs, and therefore their pricing was extremely sensitive to any changes in tariffs by TNEB. They contend that their competitiveness is being eroded due to the increase in tariffs.

Several Industry Associations have also objected to the tariff increase because of lack of investment by TNEB in upgrading the distribution network. The Manali Industries Association has objected to the tariff revision on the grounds that the need to "link tariff adjustments to increase in the productivity of capital employed and improvement in efficiency so as to safeguard the interest of the consumers" is not established in the proposal.

Industry associations in Chennai have objected to the differential tariff for metro and non-metro area. In their presentation to the Commission during the public hearings, these Associations stated that most large industrial manufacturers have developed their own captive power generation facilities. Therefore, they stated that most of the burden of the increase in tariff and lower supply would be borne by the Small and Medium Scale Manufacturers, who do not have the financial resources to set up captive generation facilities. They have also suggested that new technology should be used for securing the meters as the current practice of using seals is fraught with a lot of problems.

Several industry Associations have submitted that the time given for payment of bills should be extended to more than 7 days. They have also suggested that the industrial consumers should be permitted to opt for temporary disconnection within 15 days, if the market conditions are unfavourable.

Some industrial consumers have submitted that the new digital meters installed by the TNEB is recording a higher consumption as compared to earlier consumption levels, and have suggested that the TNEB should install additional check meters to validate the consumption recorded by the digital meters.

2.2.2 TNEB's Response on HT Supply issues

The TNEB has opined that some of the issues raised by the objectors pertain to the Conditions of Supply and are not directly connected with the process of tariff revision. However, TNEB has attempted to respond to these queries also.

Regarding the new digital meters, TNEB has stated that it would study the aspect of the genuineness and quality of the meters being provided to the consumers. TNEB has added that the new meters are thoroughly tested for accuracy before installation at the consumer's premises. TNEB feels that there is no need for putting up additional meters as check meters, as this would result in additional expenditure for installation of additional meters to check the reading of the new digital meters. Additionally, there would be an increased cost due to the wear and tear of the meters.

Regarding requests by the consumers for an extension in the payment date for the consumption charges from 7th of every month to the 15th of every month, TNEB has submitted that it attempts to match its cash commitments by matching its revenue flows based on revenue collection from consumers. TNEB's power purchase and the salary costs are incurred in the first week of every month, which is a substantial proportion of the total expenses. Additionally, the nature of the business itself is such that, there is an in-built credit period, i.e. the consumers are charged after they have consumed the power. Moreover, staggering of the payment date would increase the administrative problems of the TNEB quite substantially.

On the suggestions that HT consumers should be allowed to disconnect their services within 15 days if market conditions are difficult, TNEB stated that for supplying power to any consumer, it is incurring significant amount of capital expenditure to put up the necessary infrastructure. The investment is put up even before the HT customers start their operations. Hence TNEB believes that it should have the right to receive at least some assured revenue from the said investment. Also, if the consumer is likely to consume less energy, TNEB cannot reduce or remove the infrastructure created for such customers.

2.2.3 Commission's Ruling on HT Supply Issues

Regarding Metro and Non Metro tariffs, the Commission feels that there should not be any differential tariffs for HT consumers, as Underground Cables are provided only in the Chennai Corporation area, and most HT consumers do not benefit from these cables.

The Commission agrees with the HT industrial consumers' concern that the tariffs are already very high and any further increase in tariffs will be very difficult to sustain. The ERC Act clearly states that the cross-subsidies have to reduce over a period of time, and the Commission is bound to determine the tariffs such that they move towards the cost of supply. At the same time, the level of cross-subsidy in the State is very high, and the mismatch in the quantum of revenue earned from various categories is also very high.

Regarding the plea by Steel Re-Rolling mills, the Commission in its tariff filing formats sought clarification on the basis and need for the present extra levy for the services with arc furnaces. TNEB in its tariff proposal have stated that the extra levy is towards compensation for damages caused by harmonics and voltage fluctuations due to such loads. The Commission is of the view that only by providing filters at the source, harmonics can be contained. Simply imposing penalty is not a solution to the problem. The Commission directs TNEB to conduct a detailed technical study to assess the quantum of harmonics etc., and propose remedial measures to be enforced in future on the consumer so that the extra levy can be dropped upon the installation of the required filters etc.,

The Commission has attempted to reduce the tariffs of industrial consumers, or at the very least maintain the tariffs at the same level, which would also amount to a reduction in the cross-subsidy, as the cost of supply has increased. However, the tariffs have to be determined such that they are self-balancing, so that the TNEB is able to meet its revenue requirement through the levy of tariffs, other income and State Government subsidy. In order to achieve the above, the Commission has been constrained to slightly increase the tariffs applicable to HT industrial consumers. The Commission is committed to reducing the cross-subsidy and will attempt to achieve this target over a period of time. The Commission has favourably considered the consumer's request that the demand charges should be applicable for a certain percentage of the contract demand, as discussed subsequently.

The Commission perused the details furnished by GA Trust regarding the tariff applicable to them and directs TNEB to charge them under the HT tariff as applicable to places of public worship II B.

The Commission after a careful consideration directs that the HT supply to defence establishments may be charged under HT II-A.

The Commission agrees that Common Effluent Treatment Plants (CETP) attached to tanneries are intended for industrial purposes and directs the TNEB to charge the CETP's as per the industrial tariffs, rather than commercial rates.

As regards the request of the HT plantation industry that they should be considered under LT agricultural category, the Commission is of the opinion that the request is not tenable.

The Commission agrees with the TNEB view that HT industrial consumers cannot be permitted to opt for temporary disconnection of supply at 15 days notice based on market conditions, as the TNEB has built up the requisite infrastructure to service these consumers and also incurs substantial fixed costs. Moreover, the TNEB's planning will be affected severely if such flexibility is permitted.

The Commission would like to inform the consumers that the electro-mechanical meters are subject to wear and tear and tend to record lower consumption over a period of time, whereas there are no moving parts in the electronic meters and hence their readings are more reliable. The Commission does not find a merit in the objection that the new electronic meters record a higher consumption as compared to the earlier meters and hence there should be a check meter.

2.3 Railway Tariff

2.3.1 Objections by Railways

The CEE, Southern Railways, Chennai has objected to the application of the proposed tariff of the Domestic, Industrial and Commercial categories to consumption by Railways. Southern Railway is availing power supply under the category Low Tension Tariff LT-IA at 437 service connections for distribution to its railway colonies for domestic purposes. The power supply, which is availed under LT 1A is further distributed to the residences of around 4 to 40 employees at each location. As the consumption of all the individual consumers is aggregated for determining the consumption at the bulk supply point, most of the consumption is charged at the highest slab, whereas Railways charges each employee as per the tariff prescribed by the TNEB. The loss is borne by the Railways.

Southern Railways is also paying for domestic supply at commercial rates (HT-III Commercial), and has requested a separate HT Tariff category for bulk consumers. They have also suggested that the time given for making payments must be increased from the 7/15 days time provided. The Railways have proposed that there should be a provision for advance remittance of bills, with a corresponding rebate.

Regarding Railway Traction (HT - IB) the Southern Railways have submitted that they have already filed a petition before the Madras High Court against the tariff increase by TNEB in 2001. They have stated that the tariff proposed for the Railways is too high considering their contribution to urban and long distance transport and environment protection. They have submitted that their tariff should not be more than the industrial tariffs. They have pleaded for a tariff equivalent to TNEBs cost of supply plus a return of 3%. They have also objected to the differential tariff for Metro and Non-Metro regions. They have submitted that they do not benefit from the Underground Cables in the metro areas, and that they draw from only one sub-station through Underground Cables.

Mr. Bansal, CEE, Southern Railway, said during the SAC meeting that though the cost of supply to Railways is around Rs. 3 per unit, the Railways are charged much higher at Rs. 4.60 per unit. This is hampering their moves to add new services, as the Railways are providing cross-subsidy to the extent of around Rs. 75 crore every year.

2.3.2 TNEB's Response to the objection from Railways

The TNEB has submitted that the tariff for Railways is higher on account of the cross-subsidy, and if the Railways' tariff is reduced, then the tariff for some other categories will have to be increased correspondingly. The TNEB has added that it has attempted to reduce the level of cross-subsidy given by the Railways by not proposing any increase in the tariff, though the TNEB has proposed increase in the tariff for most other categories.

2.3.3 Commission's Ruling on the issues raised by Railways

The Commission, in appreciation of the issues raised by Railways, conducted an exclusive hearing. The inclusion of railway colonies under Low Tension Tariff I-C and merger of existing HT tariff I-B with High Tension tariff I-A is expected to solve the problem. Merger of metro and non metro rates is being implemented in this revision. Regarding the suggested provision for rebates for advance payments, they have been taken note of for consideration at the appropriate time.

2.4 Tariff For Pondicherry State

2.4.1 Objections Raised by the Government of Pondichery

The State of Pondichery has submitted that the procedure and methodology for calculation of tariff for supply to Pondicherry should be as per the Tamil Nadu Revision Tariff on Supply of Electrical Energy Act 1978, wherein it is stipulated that the supply shall be charged at the rate supplied by NLC to the TNEB plus wheeling charge at 10 paise per kWh plus 4% on the energy wheeled towards transmission loss. The State has objected that it cannot be considered a HT consumer for determination of tariffs and it can be considered under HT category only for accounting purposes.

The State of Pondicherry has also stated that no explanation has been given for the proposed hike in tariffs by TNEB and no calculations have been given to the State. The main objection is that the State cannot be treated as a consumer, and that the Commission does not have the jurisdiction to decide on the rate applicable for transmission of energy to Pondicherry, as this matter falls within the jurisdiction of the Central Electricity Regulatory Commission. The State of Pondicherry has further submitted that if the Commission decides that it does have jurisdiction to decide on this matter, then the tariff chargeable to Pondicherry should be NLC-1 rate plus 10 p/kWh wheeling charges and 4% transmission losses.

2.4.2 TNEB's Response to the points raised

With regard to the tariff for the State of Pondicherry, the TNEB has submitted that the Agreement is only between the Tamil Nadu Electricity Board and the Neyveli Lignite Corporation and that the Government of Pondicherry is not a party to this agreement. Therefore, the Pondicherry Electricity Department is also only a consumer for the Tamil Nadu Electricity Board. They have also submitted that the rate at which the energy has to be supplied to Pondicherry has not been specified in any Agreement. The TNEB, therefore, is of the opinion that the cost incurred by it has to be considered for fixing the tariff rate. Since the cost of supply at the HT end works out to 303.69 paise per unit for the year 2002-03 they have proposed to continue at 300 paise per unit for supply to Pondicherry under HT Tariff V.

TNEB has also submitted that the Commission has jurisdiction in this matter as it concerns determination of tariff for sale of power by the Tamil Nadu Electricity Board.

2.4.3 Commission's Ruling on the supply to Pondichery

The Commission has heard the views put forth by both parties, viz. the TNEB and the State of Pondicherry and has deliberated on this matter in great detail. The State of Pondicherry has a share of 65 MW and 15 MW from NLC – 2 and is being supplied and billed directly by the NLC for this quantum of purchase. The dispute between the TNEB and the State of Pondicherry is over the rate applicable for supply of power by the TNEB over and above this quantum of supply.

The State of Pondicherry's argument is that the TNEB is bound to supply power to Pondicherry as per the requirements of the State and charge at the rate specified in the Agreement between NLC-1 and TNEB. The TNEB has submitted that the TNEB is not bound by any Agreement to supply power to Pondicherry at a specific rate, and the Agreement between TNEB and NLC-1 to which Pondicherry is not party to, only mentions that the TNEB will supply power to Pondicherry based on its requirement and as per the directions of the Government of India. The Government of India has not given any directions in this regard to the TNEB. Further, the Agreement only specifies the rate of purchase of power by the TNEB from NLC – 1 and does not specify the rate for supply of power by TNEB to Pondicherry.

Prior to the tariff revision effected from December 2001, the TNEB was supplying power to Pondicherry at NLC-1 rate plus 10 p/kWh wheeling charge plus 4% transmission loss, as it was bound by the GoTN's Tariff notification which specified this rate. As the GO 95 dated November 28, 2001 had changed the rate for sale of power to Pondicherry to Rs. 3 per kWh, the TNEB was charging the same. The TNEB has clarified that there is no existing agreement with the State of Pondicherry for sale of power, either as a HT consumer or for inter-state purchase.

Regarding tariff applicable to the State of Pondicherry, the Commission is of the opinion that the State of Pondicherry cannot be considered as a HT consumer of the TNEB for the fixation of tariffs, and the transaction must be considered as an inter-State sale of energy. Therefore, the Commission is of the opinion that the rate of energy must be negotiated and agreed directly between GoTN /TNEB and the State of Pondicherry. For the purposes of this tariff determination exercise, the Commission has maintained the status quo as regards the existing tariff of Rs. 3 per kWh applicable to the State of Pondicherry.

2.5 Tariff Setting Approach

2.5.1 Objections raised on tariff setting approach

The Citizens Alliance for Sustainable Living, Chennai, has submitted that TNEB has not provided a Demand side management/Energy efficiency action plan which would cover all aspects of efficiency, economical use of resources, good performance and optimum investments, and therefore must not be allowed to seek a tariff revision.

The MDMK Party has objected to the tariff revision and has stated that the poor and middle class will be most affected by this revision. They have also suggested that the revision should be done only once in three years. They have suggested that the Annual Revenue Requirement can be reduced through control of power theft and T&D loss reduction.

One objector has stated that the strategy should be to rationalise the increase in tariffs per unit, with lesser number of slabs. Further, the objector has argued that large industries capture economies of scale and should be charged more than smaller units.Many industrial consumers have objected to the tariff proposal on the basis that all are equal under law, and therefore must be treated on par with the subsidised entities.

The Bureau for Parliamentary Work has submitted that the fixation of tariff for supply of power by TNEB should be made so as to satisfy the socialist philosophy (as in the preamble of the Indian Constitution) and with a view to reduce the tariff burden on the single phase consumer and to gradually increase the price of power to the affluent sector.

M/s Brakes India limited has requested the Commission to consider the HT consumers favourably, based on the stability they provide to the grid, besides being the major revenue generators with the least fixed cost of management and maintenance.

During the public hearings one objector suggested that all consumers of TNEB should be classified into four categories, namely, Residential, Agriculture, Industrial and Commercial (non-residential). He further submitted that the residential tariff should be considered the base, with discounts given to Agriculture, etc. Several petitioners have also stated that the State Government should reimburse all discounts and subsidies given by TNEB. Several objectors have suggested that the State Government must find some other means of levying cess and taxes to provide this subsidy to TNEB.

The TNEB Retired Officers Association had submitted that tariffs must reflect the cost of supply and that consumers could be categorised under LT and HT with a base rate for each category. They have also suggested that the approach to tariff setting should ensure that tariff structures are rationalised and highly simplified, while the current TNEB proposal retains the existing structure and merely proposes tariff increases for certain categories.

The Tamizhaga Vivasayigal Sangam has submitted that the statement of TNEB in its affidavit that the tariff is influenced by socio-economic factors is inconsistent with the proposed increase in tariff revision to increase the recoveries from LT consumers compared to HT consumers.

The CITU argued during the public hearings that the tariff revision should be made effective from January 2003, and the time for submission of objections should have been extended. They felt that the time period was insufficient to analyse and raise serious objections. During the hearings, Mr. Muthuraman contended that a tariff revision should not be allowed without a socio-economic analysis of TNEB's consumers.

Mr. Ashok Kumbhat, Chartered Accountant, suggested during the public hearing that there should be a logical basis for slab formation, and that currently the categories are too complex. He had also suggested that per capita consumption should be increased, along with a parallel increase in TNEB’s own generation capacities.

The Southern India Chamber of Commerce has suggested that TNEB should adopt the Long Run Social Costing method for its investments, and that a comprehensive subsidy management system should be implemented.

One objector from Chennai has objected to the approach to Tariff setting and has submitted that every unit should be charged at the same rate. He states that there is no rationale for charging higher tariffs for higher consumption. The objector has added that this is against all economic principles considering the cost per unit of production.

One HT consumer has stated that for the tariff revision to be accepted, information must be presented on plant load factor, fuel consumption and other performance parameters. He has further added that cost reduction plans must also be submitted by TNEB for a complete tariff revision proposal.

The Citizen Consumer and Civic Action Group (CAG) has submitted that the request by TNEB for creation of a "Regulatory Asset" for the deficit arising during 2002-03 to the extent of around Rs. 1714 crore, with eventual recovery in the later years, is illegal. Such a request is illegal and per se objectionable and against the statutory provision of the Electricity (Supply) Act, 1948 (ESA Act). The objector has also submitted that the current request for creation of a Regulatory Asset (deficit pertaining to the year 2002-2003) and the tariff revision for the rest of the year 2003-2004 is per se illegal since it violates the provision of the ESA Act and will be tantamount to more than one tariff revision in one single year. During the public hearings, the CAG had also submitted to the Commission that it should reject the tariff proposal because the affidavit does not mention whether the information in it, is true to the deponent's personal knowledge or not. They have also pleaded that Distributed Generation should be encouraged in the State.

One objector has objected to the tariff setting processes, because of the methodology adopted for calculating the Energy Balance. The objector has stated that the correct methodology would be to project the sales consumption at various tariff levels and then work out the energy required to meet the projected sales by adding the expected line losses after computing the losses based on the system network.

Some objectors have submitted that the quality of TNEB's accounts are not of acceptable standards, and hence an independent auditor should be appointed to verify the accounts.

Industrial Associations have suggested that tariffs should be progressively reduced to achieve parity with the net total of production cost +5% profit within a specific period.

One objector has identified some deficiencies in the proposals, mainly in the T&D losses and the lack of T&D loss data for Chennai. The objector has also mentioned that for approving the tariff revision, the Commission must obtain TNEB's Energy audit plans, increase in fuel efficiency, Reduction of T&D losses, reduction of administration costs by TNEB.

One objector has submitted that TNEB has violated the tariff filing guidelines issued by the Commission. Documents not submitted by TNEB include an embedded cost study showing cost of service to each category of consumer; an analysis of the effect of the proposed tariff changes on the average as well as typical small, medium and large consumers and a statement of the proposed cross subsidy.

The Southern India Chamber of Commerce and Industry has appealed to the Commission that it should not issue any Orders until the RRT formats, for which TNEB has sought an exemption, are made available to the stake holders. The Chamber has also pointed out that the actual figures published for the year 2001-02 by TNEB in the proposal has not been audited by the Comptroller and Auditor General of India.

The common issues related to the tariff setting process highlighted by many objectors during the public hearings included requests for more time to analyse the tariff proposal, requests for tariff proposal and ARR documents in Tamil, and conducting public hearings in more locations, ideally at all district head quarters.

2.5.2 TNEB's Response to the points on tariff setting approach

The TNEB has stated that it is entitled to revise its tariffs once every year, as per Section 59 of the E (S) Act, such that it is able to meet its revenue expenditure and the mandatory surplus of 3% on the Net Fixed Assets. As regards the categorisation of consumers, the TNEB has stated that it is within the purview of the Commission. The TNEB has not proposed any changes in the categorisation, as this entails a significant change, and the impact of the changes have to be assessed before the changes are implemented.

TNEB has responded that it recognises that the existing tariff structure needs to be rationalised in keeping with provisions of Section 29 (2)(c) of the Electricity Regulatory Commissions Act 1998, which states, "that the tariff progressively reflects the cost of supply of electricity at an adequate and improving level of efficiency".

The TNEB has submitted that the regulatory asset is not a hidden cost, and that since it did not wish to burden the consumers with tariffs designed to meet the increase in its operational cost it has set aside a sum to even out the tariff increase required. This mechanism, while ensuring the interest of TNEB will also ensure that the consumer interests are protected. The TNEB has stated that the regulatory asset could be amortised over time (generally 4-5 years) in a phased manner as decided by the Honourable Commission to seek recovery in an even manner from the consumers. The mechanism thus allows the impact of the tariff increase to be spread over a period of time and hence prevent any rate shock for the consumer.

Regarding the quality of TNEB's accounts, it has stated that, the accounts have been prepared as per the Electricity Supply (Annual Accounts) Rules, 1985. They are regularly audited by the Accountant General of Tamil Nadu under Section 69(2) of the Electricity Supply Act, 1948 and certified by the Comptroller and Auditor General each year. Hence TNEB feels that another level of scrutiny, in the form of another independent auditor, to verify the manner of maintaining records and check the veracity of its published figures may not be required.

2.5.3 Commission's Ruling on the issues raised towards tariff setting approach

The Commission does not agree with the objector that the TNEB's tariffs should be determined so as to fulfill the social objectives. The attainment of social objectives falls within the purview of the State Government, and the TNEB has to operate as a commercial entity so that the Board will be in a position to ensure uninterrupted, quality power supply to all consumers.

The TNEB is entitled to approach the Commission for revision in tariffs once every year, as per the provisions of the ERC Act, 1998 and the E(S) Act, 1948, to recover its legitimate expenses and the mandatory minimum return on the NFA.

The Commission has taken note of the suggestions made by the consumers regarding the reclassification of the consumer categories and the consumption slabs, and has given its decision in the section on Tariff Philosophy.

The Commission would like to inform the public that the Commission had asked for and obtained a lot of additional data from the TNEB. In the interests of the tariff process and the long-term viability of the sector, the tariff petition submitted by the TNEB has been processed and the Tariff Order issued, based on the tariff petition and after taking into consideration the additional data submitted by TNEB from time to time.

The Commission is of the view that the tariff setting approach and philosophy have been defined in Section 29 of Electricity Regulatory Commissions Act, (ERC) 1998.

The sub-section (3) of section 29 of ERC Act stipulates that the tariff rates can differ from the cost of electricity. Accordingly, the Commission will not show undue preference to any consumer in fixing tariff rates but can differentiate according to the

i. Consumer's Load Factor

ii. Consumer's Power Factor

iii Consumer's total consumption of energy during any specified period or the time at which the supply is required.

iv Geographical position of any area.

v Nature of supply and

vi The purpose for which the supply is required.

Tariff rates should differ according to the voltage at which supply is given to any consumer. Power from various sources is pumped into the grid at EHT and HT (mostly at EHT) voltages. All the power pumped at various voltages is not absorbed fully by the loads at the respective voltages. So the net power flow is from EHT voltages to HT voltages and further down to LT voltage. Hence, the cumulative losses at lower voltages are higher than that at higher voltages. As a result, the cost of supply at higher voltages is less than that at lower voltages. Normally, the tariff rates are to be fixed in accordance to the cost of supply. Also different tariff rates can be fixed for consumers for whom uninterrupted power supply is ensured and for consumers for whom power supply is made available only during particular hours in a day.

As regards creation of a regulatory asset, some ERCs have allowed Regulatory Asset for the unrecovered portion of the revenue requirements, and there is no legal bar in TNEB submitting a Tariff Application with a request for provision of a Regulatory asset. If regulatory asset is created and amortized over four to five years period, then the revenue requirement in the succeeding years would increase further. The Commission wishes to start and maintain a clean slate by setting off the unrecovered gap due to the implementation of the tariff revision in the middle of the financial year, against the reserves and surplus of the TNEB after the accounts are finalised for the year 2002-03.

The Commission is of the view that different tariff rates should continue to be fixed according to the purpose for which electric supply is used, such as domestic, commercial, industry, traction, etc. The Act permits higher or lower rate for different purposes or categories for which the supply is used, but does not permit different rates for varied levels of consumption within any one category of consumers. However, the sliding scale slab structure of tariffs is deeply ingrained in the existing tariff structure, and can only be eliminated over a period of time.

The Commission is also of the opinion If different rates or incentive / disincentive levies are proposed on account of factors like consumers' load factor, power factor and total consumption during any specified period or time, geographical position of any area and nature of supply, the reasons for such discrimination is to be spelt out in a transparent and acceptable manner. It is desirable that charges on account of these factors are brought out separately instead of embedding into the total tariff rates.

2.6 Demand Charges

2.6.1 Objections raised on the Demand Charges

A number of industrial consumers have mentioned that the increase in the demand charges from Rs. 150/- to Rs. 300/- per kVA in November 2001 has significantly increased their cost of production and has made them more vulnerable to competition. Any further increases in tariffs would reduce their competitive edge further.

Several HT consumers have objected to the Demand Charge, which is currently equivalent to 100% of the contract demand. Several consumers and Associations have suggested that the charge should be only 70% to 80% of the contract demand or the actual demand whichever is higher.

Several cement manufacturing companies have requested that the minimum demand charge should be applicable for 75% of the contract demand, and the tariffs should be maintained at the current levels for HT - 1A tariff slab. The Madras Steel Re-rollers Association has requested for the demand charges to be applicable on 90% of the contract demand.

M/s S. V. Sugar Mills limited in their petition have highlighted the deficiencies in the Quality of services and Maximum Demand Charge calculation. Regardless of having the requisite contract demand and paying maximum demand charges, they are unable to draw power at the maximum level, thereby forcing them to incur further costs by using DG sets. Hence, they have proposed that the maximum demand charges should be linked to the total number of hours of power availability at appropriate voltage levels. Many objectors have requested the Commission to direct TNEB to grant appropriate reduction in Maximum Demand Charges in the event of frequent power failure and low voltage of electricity supply.

The Planters Association of Tamil Nadu has objected to the demand charges, as the maximum demand varies due to the seasonality of their business. They have also requested for a reduction in their sanctioned load due to market conditions. The Trichy District Rice Mill Owners and Paddy & Rice Merchants Association have also objected to the maximum demand charge because of the seasonality of their business.

The Railways have requested that the Maximum demand for billing purposes should be a percentage of the contract demand (such as 70%), rather than the Contract Demand.

2.6.2 TNEB's Response to the Objections on demand charges

The TNEB has responded by stating that rational tariff setting principles require that it should recover its fixed costs through fixed charges and variable costs through variable charges, and, as a matter of principle, all consumers should be subjected to a two-part tariff regime. Moreover for supplying power to any consumer, TNEB incurs capital expenditure to put up significant infrastructure. Hence TNEB believes that it should have the right to receive at least some assured revenue from the said investment. Also, if the consumer is likely to consume less energy, TNEB cannot reduce or remove the infrastructure created for the said customer.

The TNEB has added that it is not recovering the full fixed cost from demand charges and the Board is attempting to correct the mismatch in the tariff structure. It had attempted to balance its fixed cost recovery from the HT industry consumers in its previous tariff revision through enhancement of the rate of demand charges and imposition of 100% of the demand for computation of revenue. Further, the TNEB's calculation based on the available cost data indicates that the cost recovery through demand charge for HT consumers is based on rational considerations. TNEB has submitted that based on the fixed cost allocated for the HT consumers for FY 2003-04 the demand charge works out to an average of Rs 368 Rs/KVA, however it is imposing only Rs 300 per KVA as the fixed charge to the HT consumers.

2.6.3 Commission's Ruling on demand charges

In most of the States, the demand charges are applicable on either 75% to 80% of the Contract Demand, and not on the entire contract demand. In the existing tariff structure, the demand charges are levied on contract demand or the actual demand, whichever is higher, which effectively means that the demand charges would always be applicable on the entire contract demand. The Commission has hence modified the billing demand definition such that the demand charges will be levied on the higher of actual maximum demand recorded during the month or 90% of the contract demand.

As regards the consumers' request that the demand charges should be proportionally reduced for hours of no-supply, the Commission would like to clarify that the demand charges are intended to recover the fixed costs of the TNEB, including interest, depreciation, employees, repairs and maintenance, etc. Hence, even if there is no supply, these costs have to be incurred and the demand charges will have to be levied. However, the Commission does not condone the TNEB's performance on this front, and directs the TNEB to ensure that the supply break-downs are minimised to the extent possible.

2.7 Subsidy – Cross Subsidy

2.7.1 Objections raised on the issue of subsidy

The South India Engineering Manufacturers Association has stated that Cross Subsidisation is further increased whenever there is tariff revision, and the brunt of the increase is borne by HT consumers.

A number of consumers and consumer Associations have objected to the cross subsidisation, especially the free/subsidised power to huts and agriculture. Some objectors have submitted that the beneficiaries of the free hut supply scheme have the economic and financial capability to pay a higher tariff. Similarly, they have contended that TNEB is losing revenue through the discretion involved in fixing transformers for flats, and unaccounted T&D losses.

The Federation of All Trade Associations of Erode District has contended that free power should be given only to marginal and poor farmers and free power to huts should be given only after thorough verification.

Some objectors have supported cross subsidisation and believe that there should be no tariffs for agriculture and supply for huts should continue to be free. At the same time, other objectors have stated that a maximum consumption level should be defined for each person/group depending on the usage/requirement.

A number of HT consumers, including Ennore Foundries Limited have objected to Cross subsidisation of Domestic, Huts and Agriculture sectors, because the industry cannot bear any further cost increases as the business conditions are not favourable.

M/s Golden Crest Developers, a HT consumer, has stated that it does not prima facie object to increase in energy charges when there are bonafide reasons for such increases, however, any such increase has to be more balanced and has to be evenly distributed among all the customers without any discrimination.

One objection against the tariff revision states that the attempts at rationalisation of tariffs on the basis of actual cost of generation, transmission, distribution and supply are inadequate.

Mr. M.S. Parthasarathy, President, NCSI, stated during the SAC meeting that the agricultural sector should also be charged to meet the minimum production cost and reduce the burden on other consumers.

One objector has stated that as per the Electricity Regulatory Commissions Act, in the event of the State government wanting to subsidise certain classes of consumers, payments towards the same must be made by way of direct subsidies in the State Budget and not through cross subsidies from another class of consumers. However, the present proposal continues to use cross subsidies as the method of collecting the deficit.

The CII has stated that there is no reason for the industry to bear the brunt of subsidising other sectors at the cost of its competitiveness and that the Government should devise alternative forms of tax / cess collections to reduce the impact of agriculture and domestic subsidies on the industry.

A number of petitioners had submitted in the public hearings that the State Government must reimburse TNEB for providing free power to Agriculture and the outstanding subsidy amounts must be given to TNEB.

The Tamil Nadu Electricity Consumers Association has submitted that the revenue receipts and expenditure statement of TNEB indicate that the State

Government has been contributing between Rs. 1076 crore to Rs. 1776 crores in the previous three financial years, whereas the TNEB has projected subsidy receipts of only Rs. 250 crore for FY 2003-04. They further submit that the appropriate cost share of the substantially subsidised supply of power to the agriculture sector (25.48%) of the total estimated cost of Rs. 13764 crore for FY 2003-04 should be borne by the Government. In this context, the consumer association has stated that having embarked on the policy of free power, the Government must continue to shoulder the financial burden incurred by TNEB and not transfer this burden to tariff paying consumers.

Several SAC Members said during the SAC meeting that the tariffs for any category should not be higher than 150% of the cost of supply.

2.7.2 TNEB's Response on the issue of subsidy

The TNEB has responded that it also recognises that the existing tariff structure needs to be rationalised in keeping with provisions of Section 29 (2)(c) of the Electricity Regulatory Commissions Act, 1998. TNEB has submitted that its tariff proposal has proposed to gradually rationalise the tariffs for most categories of consumers. Further, the average realisation from existing tariff for LT consumers is significantly below the average cost of supply. In case the tariffs are corrected from the present situation to reflect the costs to supply at different voltage levels it would require a major increase in the tariff for LT consumers. TNEB believes that the tariff rationalisation has to be gradual to avoid burdening some consumer categories. Hence, in TNEB's view, cross subsidy to some consumer categories appears inevitable, and has been maintained. However the average realisation of the LT category as a whole is proposed to be increased compared to the levels existing in the previous year. The TNEB has requested the Commission to prescribe a time frame for progressive rationalisation in the tariff structure for the cross-subsidised segments.

The TNEB has further submitted that it has taken all possible measures to realise the subsidy outstanding from the State Government. In fact, the electricity tax collected by the Board on behalf of the State Government is being offset against the subsidy commitment. Similarly, other measures such as adjustment of the interest due from State Government loans are also being employed. The State Government in its budget document has provided a subsidy commitment of Rs 250 Cr for the FY 2002-03, which has been partly received by the Board. The TNEB has requested the Honourable Commission to provide necessary directions in this regard.

2.7.3 Response of GoTN on the issue of subsidy

Government of Tamil Nadu in their written submission have stated the following.

“ The Government of Tamil Nadu takes note of the fact that under the provisions of the Electricity Regulatory Commissions Act, 1998, the duly notified Tamil Nadu Electricity Regulatory Commission is required Under Sec. 22 (1) to determine the tariff that can be charged by the Tamil Nadu Electricity Board. The Tamil Nadu State Electricity Regulatory Commission has been duly constituted under Sec. 17 (1) of this Act. The Tamil Nadu Electricity Regulatory Commission was constituted on 17.3.1999. Since the Tamil Nadu Electricity Regulatory Commission is a duly constituted statutory body under the Electricity Regulatory Commissions Act 1998, the Government of Tamil Nadu wishes to submit these views before the Commission.

Under Sec. 22(1)(a) the Tamil Nadu State Electricity Regulatory Commission is empowered to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be. This is to be based on the principles set out in Section 29. The Government of Tamil Nadu takes note of the fact that the principles guiding the fixation of tariff are set out in Sec.29 of the Electricity Regulatory Commissions Act 1998. Under Sec.29(3) the State Commission, while determining the tariff under this Act, shall not show undue preference to any consumer of electricity, but may differentiate according to the consumer's load factor, power factor, total consumption of energy during any specified period or 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. The Government of Tamil Nadu would respectfully like to submit that the State Electricity Regulatory Commission while applying the principles set out in Sec.29 of the Electricity Regulatory Commissions Act 1998 should take note in particular the guiding principle under Sec.29(3) of the Act.

While the Government of Tamil Nadu wishes to submit that while it is necessary for the tariffs to be determined as per the detailed principles under Sec. 29(2) of the Act and in particular Sec. 29(2)(f) which requires that the tariff of the Electricity Board are conducted on commercial principles, the guiding principles under Sec. 29(3) cannot be ignored. The Tamil Nadu Electricity Regulatory Commission has ample powers to make a differentiation on the basis of the geographical position of any area, the nature of supply and the purpose for which the supply is required. Accordingly, it is open to the Tamil Nadu Electricity Regulatory Commission to go into in detail the location of the consumer, the nature of supply and the use to which the electricity supply is put to by the consumer.

Accordingly, the Government of Tamil Nadu respectfully wishes to submit that it is open to the Tamil Nadu Electricity Regulatory Commission to make a rational distinction between different types of consumers and determine the tariff accordingly. It is a well-known fact that the share of the primary sector consisting primarily of agriculture and allied activities is declining in the Gross State Domestic Product. While in absolute terms there is an increase of the primary sector's contribution to GSDP, the relative share has declined. At the same time the percentage of the population dependent on the primary sector continues to be at the very high level of 62%. This implies that 62% of the population has to make to do with 17% of the Gross State Domestic Product. Obviously this situation indicates the very high level of poverty extent in the rural economy. Any loss of income of farmers due to increase in costs can lead to multiplier adverse effects in the rural economy.

In order to make rapid strides in the rural economy, the Government of Tamil Nadu has just launched the Tenth Plan (2002-2007). Under this Plan, the objective is to provide access to an improved technology package to all farmers and particularly farmers operating pump sets so that farm productivity and incomes can be improved. It is also the intention to enhance the shift to value added commercial crops particularly horticulture so that it gives improved farm incomes. Thus the key objective of the Tenth Plan is to secure the improvement of the rural economy particularly the farm economy. This effort to step up farm productivity and value addition will; have to be an ongoing process. It can be expected to yield good results in the medium term within a period of 3 years. The Government of Tamil Nadu respectfully submits that under Sec.29(3) of the Electricity Regulatory Commissions Act 1998, such a situation can be taken note of by the Tamil Nadu Electricity Regulatory Commission. This would include taking note of the rural area as a separate geographical area. Also Sec.29(3) provides for taking note of the purpose of supply to farm pump sets to provide irrigation to farm land as a distinct category. This distinction has to be made by the Tamil Nadu Electricity Regulatory Commission. Such distinction can also be made on account of nature of supply, which is different from the supply to other consumers. The Government of Tamil Nadu would therefore submit to the Tamil Nadu Electricity Regulatory Commission that it should adopt these principles in making a distinction in dealing with electricity supply to farm pump sets and huts in rural areas.

It has been the policy of the Government of Tamil Nadu to extend free electricity supply to farm pump sets and huts. Even after this Government assumed Office and tariff revision had to be undertaken from 1.12.2001 the present Government of Tamil Nadu continued the free supply of electricity for farm pumpsets and huts. The Government of Tamil Nadu would respectfully submit that this is a well considered policy which needs to be continued given the background of the rural economy and the high percentage of population that it supports and the fact that it will take some more time for enhanced income to be realised by farmers. The Government of Tamil Nadu is of the view that farmers and hut dwellers should continue to be supported further. This also assumes greater significance in the context of the serious drought situation prevailing in the State. The Government of Tamil Nadu would wish to submit that this support is best provided by continuing free supply of electricity to those two categories.

The Government of Tamil Nadu will do its utmost to protect the interests of farmers. However, it is limited by its own financial constraints. The Government of Tamil Nadu has been facing a major fiscal crisis. This fiscal crisis has its origin in 1998-99 following the implementation of the Pay Commission's recommendations. This has incapacitated the finances of the State. As a consequence of this fiscal crisis, the State has had to undertake a fiscal reforms programme. Under this fiscal reform programme, the State Government is required to reduce its revenue deficit to zero. At present its revenue deficit is 30% of its total revenue receipts. This has to be brought down to zero. This requires compression of existing expenditure and increasing the revenues. Since increasing the revenues is hardly possible given the limited scope that Tamil Nadu has in additional resource mobilisation, the only answer is to reduce the slow down the growth of expenditure. As part of the fiscal reforms programme, the Government of Tamil Nadu is required to slow down expenditure on all items. This has required slowing down of expenditure on employee emoluments, subsidies, interest payments and grantsin-aid. In view of this situation, the Government of Tamil Nadu is unable to provide from its Budget revenue support to the Tamil Nadu Electricity Board to meet its revenue requirements.

In this context the Government of Tamil Nadu respectfully submits that the Tamil Nadu Electricity Regulatory Commission may consider alternative means of ensuring that free electricity is continued for farm pump sets and huts. This has been possible in the past through various measures. The Government of Tamil Nadu respectfully submits that the Tamil Nadu Electricity Regulatory Commission may examine all such options in determining that free electricity shall continue for farm pump sets and huts."

2.7.4 Commission's Ruling on subsidy

The Commission has taken note of the submissions in this regard by TNEB and GoTN and determined the tariff accordingly. It is to be noted that the Commission is bound by the provisions of the ERC Act, 1998, which states that the tariffs for all consumer categories should approach towards the cost of supply. The Commission appreciates that the level of cross-subsidisation has reached quite high levels and the subsidising consumers will find it difficult to continue to bear the cross-subsidy burden. At the same time, it is also an undeniable fact that the tariffs for the subsidised categories cannot be increased steeply to eliminate the cross-subsidy in one year. The Commission's view on cost of supply and subsidies is that no consumer apart from agricultural and hut consumers should be charged 50% more or less than the cost of supply and this goal is to be achieved in a period of three years. High priced HT or LT slab rates are to be decreased when they exceed 150% of cost of supply.

2.8 Time Of Day Tariff (TOD)

2.8.1 Objectors demand on TOD Tariff

The South India Chamber of Commerce submitted during the public hearings that the foundry industry was already facing competitive pressures from imports, and the 20% additional charge for consumption during peak hours should be reduced or withdrawn. The Madras Steel Re-rollers Association has stated that the installation of TOD meters has led to a 25% increase in peak hour tariff, but there has been no corresponding decrease in non-peak hour tariff.

A number of HT consumers and consumer Association have criticised the current TOD tariffs. They argue that a penalty/extra charge is being levied for drawal of power during peak hours, however, no rebate is given for usage of power during non-peak hours. The Southern India Mills Association has appealed that TNEB should charge lower tariffs for off peak consumption.

During the public hearings, the Planters Association of India has contended that the Time of day tariff cannot be applicable to their industry, because their manufacturing process involves perishable commodities, whose processing cannot be scheduled based on the time of day.

2.8.2 TNEB's Response on TOD Tariff

TNEB has responded that the additional charge for consumption during peak hours is imposed to ensure strict discipline among the consumers. During certain hours of the day, the demand from the consumers exceeds the available supply position by a large margin, forcing TNEB to purchase expensive power to meet the requirement. Hence, TNEB is forced to seek higher charges for meeting the additional expenditure from such consumers. The higher peak tariffs force the consumers to shift their load from the peak to the off-peak period thus enabling flattening of the load curve.

TNEB has also stated that the Southern Grid, in which it operates, is facing shortages in meeting its demand. The load growth has outrun the capacity addition from the Central, State and Private Sector. Hence, various demand side measures have been undertaken to shift the peak load to the relatively normal load periods. Currently TNEB is giving night-time concessions for new industries, which work during night shift only (between 9.30 PM to 5.30 AM) during the months of July to January. However, TNEB has submitted that it has a meagre surplus capacity ranging from 200 MW to 500 MW during some hours of night time depending on the seasonal pattern. The surplus capacity is on account of backing down of some of the expensive IPP stations. Hence the concession at best may be availed by small industrial clusters operating during night hours. Similarly the extent of concession may be marginal as the capacity being utilized to provide the supply during the night time would be expensive IPP power.

2.8.3 Commission's Ruling on TOD Tariff

In TNEB's transmission grid there are peak demands during morning and evening peak hours. The peak demand determines the capacity of generation requirement. A reduction in peak demand would allow TNEB to reduce power purchase, generation costs and reduce the overall cost of supply. The Commission feels that the current disincentives in the tariff rates to avail supply during peak hours should continue and incentives to avail supply during non-peak hours should be introduced. Accordingly, the Commission has introduced a rebate of 5% for HT industrial consumers for consumption during 2200 to 0500 hrs.

2.9 High Power Factor Incentive

2.9.1 Objectors demand on power factor incentive

Several cement manufacturing companies have suggested that an incentive must be provided when a higher Power factor level is maintained. Similarly, the Madras Steel Re-rollers Association and several other consumers have suggested that just as there is penalty for recording lower power factor (less than 0.9) there should be an incentive for consumers who record a higher power factor.

2.9.2 TNEB's View on power factor incentive

The TNEB has submitted that maintaining the power factor at higher levels is itself an incentive, as it benefits the consumer in terms of a stable voltage of operation and reduced chances of damage to consumer equipment due to fluctuations and overloading. In addition, it leads to cost savings to the consumer through a lower energy charge. The TNEB on the contrary is required to put up capacitor banks and other infrastructure services to correct the low power factor in the system. Hence, it charges a suitable penalty from the consumers

2.9.3 Commission's Ruling on power factor incentive

The Consumer's Power Factor depends upon the nature of appliances used by the consumer. Unity power factor loads cause minimum losses in the distribution and transmission lines. Therefore, the Commission is of the opinion that consumers having low power factor should be penalised by levying penal charges and consumers with higher power factor should be rewarded through incentives to maintain a higher power factor. This has been introduced.

2.10 Transmission & Distribution Losses

2.10.1 Issues raised by objectors on T&D Losses

Many objectors have objected to the methodology adopted for calculation of the T&D Losses and believe that proper management of T&D would reduce the Revenue Requirement.

One objector has stated that the information on T&D losses presents a dismal picture, though some comfort can be taken from the fact that it is better than in some other States in the country. However, two areas remain unresolved:

- The overall % T&D losses stagnate at 16.25% in 2001-02, 2002-03 as well as 2003-04. The inevitable conclusion is that no major initiative is on the anvil towards achieving a reduction in the T&D losses.

- The Sample HT loss assessment conducted in 7 regions indicate an average T&D loss of 7.7% and TNEB contends that "the line losses at HT end are within normative levels". But the average reveals the wide fluctuation in the loss between regions - ranging from 3.53% in Tirunelveli to 12.05% in Coimbatore. Sample line loss study data given also indicates similar wide fluctuations : 4.47% in Erode to 13.86% in Villupuram.

The CAG has submitted that the entire costs of T&D have been allocated on the basis of energy consumption in HT and LT segments. The CAG has appealed that the actual costs have to be traced, assigned, apportioned or allocated properly to identify the costs at the consumer end.

The South India Small Spinners Association have stated in their objection that the T&D losses arrived by TNEB in its submissions are based only on a random and discontinuous study carried out in selected regions on a specific time table. Moreover, the TNEB has not provided any details as to the reasonability and methodology of the study nor has it provided any details about standardisation and reliability of the results of the study. Mr. M.S. Gurusamy, Advocate, Coimbatore, has suggested that tariffs should be controlled through prevention of line loss and power theft. He has also suggested that Vigilance and Inspection should be stepped up, along with organisational restructuring and material procurement systems. The General Secretary, Tamil Nadu Consumer Welfare Centre, Coimbatore has pleaded that the Domestic tariff increase must be reduced through reduction in T&D losses.

The Arur Subramaniam Siva Cooperative Sugar Cane Processing and Sugar Cane Association has submitted that there is great loss to TNEB through theft of electricity. Suggestions put forward by the Association include improvement in the transmission and distribution equipment to reduce T&D loss and improvement in quality of service, and imposition of penalties on agriculturists who misuse free power.

The Tamil Chamber of Commerce has stated that TNEB could meet most of its revenue requirements through reduction in its establishment expenses and T&D Losses.

During the SAC meeting, Mr. M.S. Parthasarathy, President, NCSI, stated that the T & D losses were being understated at 16.25%, and the actual losses would be higher, at 22% to 23%. He added that TNEB should make it mandatory for the HT consumers with more than 100 kVA to go in for energy audit. Mr. Bansal, CEE, Southern Railway added that TNEB should go in for 11 kV distribution system with small capacity distribution transformers such as 10 to 15 kVA for every small group of agricultural services, as this will reduce line losses and prevent theft. He suggested that the TNEB could go in for 11 kV/ 230 V transformers of 63 / 100 kVA capacity to feed individual/multi-storied buildings to minimise losses.

Mr. Venu Srinivasan, MD, TVS Motor Company and SAC Member, stated during the SAC meeting that power theft was not limited to unorganised sectors, and significant theft occurs in the organised sector also. He recommended that feeder level energy measurement could be used to assess the energy balance.

Mr. K. Venkatesan, IAS, Retd. and SAC Member, suggested during the SAC meeting that TNEB should use aerial bunched cables that would ensure safety as well as avoid theft by hooking.

2.10.2 TNEB's Response on T&D Losses

TNEB has responded that it had already indicated to the Commission that pending implementation of the metering program, the T&D loss estimation was provisional based on the sample data. The sample data has given broad indications of the areas where the losses are more prominent. The TNEB has initiated measures aimed at system improvement. Based on the energy balance, the T&D losses are currently assessed at 16.25%. The losses are one of the lowest among the States, which have recently approached their respective Commissions with reasonably accurate data on losses. The T&D losses should be viewed in the light of the mix of the consumers (mainly domestic and agricultural) and the resources at its disposal for system upgradation and procurement of new technology meters as in other countries.

TNEB has also mentioned that it had initiated sample study in several areas to keep a check on the loss levels. The sample data available from the eight circles indicates that the T&D losses are 7.71% at the 11/22 kV level. This indicates that the line losses at HT end are within the normative levels. It is expected that bulk of the losses in the system are technical and accordingly the TNEB has undertaken measures to strengthen the system for reduction of the losses. The State has a low incidence of losses in the LT system. Assessment of agricultural consumption is carried out based on the metered data from sample connections (3% of the total service connections). The TNEB has added that the incidence of theft and tampering of the meters is minimal in the State. For some of the HT consumers, the introduction of tamperproof meters at the consumer's premises along with a check meter facility has greatly helped to reduce the incidence of meter tampering. Moreover, reduction of T&D losses from existing levels of 16.25% to 12% would entail a huge investment of nearly Rs 4000 Cr.

TNEB, in their subsequent submission to some of the specific queries by the Commission, have informed on two consultancy jobs under the World Bank assisted Water Resource Consolidation Project (WRCP) (a) to establish analytical procedures and sample size assessment of energy consumption for unmetered services and (b) to assess the efficiency of agricultural pumpsets and recoomend steps for improvement. They will be sharing the final results and the follow up action with the Commission in the next tariff petition.

TNEB has stated that while the consumers in the State are law abiding in general and the incidence of theft is minimal, adequate measures have been taken by the TNEB so that the honest paying consumers do not suffer for the actions of the non-paying consumers. Based on the amendment incorporated by the State under the IE Act, theft of electricity is recognised as a cognisable offence. The Section imposes compounding fee of twice the applicable tariff in case theft is detected. During the year 2001, as many as one lakh connections were inspected and 1565 theft cases were detected.

The TNEB has Sixteen Enforcement squads under the control of four EEs (Chennai, Trichy, Madurai and Coimbatore) who work under the supervision of the Chief Engineer / Enforcement and overall control of ADGP/Vigilance. TNEB has also formed two Flying Squads to detect the theft of energy cases throughout the state of Tamil Nadu in addition to the Enforcement squads. Detection of energy thefts is being attempted based on scientifically planned inspections. About 500 services per month are being inspected by each squad out of which 30% services are Industrial. Mass inspection of domestic services are carried out in each circle , one section per month. An “Intelligence Wing” directly under the control of ADGP / Vigilance / Chennai in Chennai region with one Engineer and one Inspector of Police has been formed to collect information on energy thefts. Thus, necessary measures to detect theft related cases and prevent incidence of such cases are already being undertaken by TNEB.

During the SAC meeting, Chairman TNEB said that the TNEB has examined the possibility of implementing High Voltage Distribution System, and it was found that there are some practical difficulties.

2.10.3 Commission’s Ruling on T&D Losses

The Commission is of the opinion that ultimately the TNEB should be able to assess the transmission and distribution losses in each of the voltage systems of the Grid. As a first step, the Commission directs the TNEB to assess the T & D losses in the following three voltage systems.

i) <u>230, 110, 66 and 33 kV Voltage systems</u>

At all input source points, meters are already installed. Meters should be installed at the output points at each sub-station. Energy balance can be assessed by taking the monthly readings at all these points combined, which will also give the line losses assessed at 230, 110, 66 and 33 kV voltage systems. Readings may be taken simultaneously at the same time on the last day of the calendar month at these points. The time may be synchronised with the time of power grid readings. Monthly energy balance assessment is to be carried out as done in the SREB and a copy is to be submitted to the Commission. In each circle, for a group of five to six substations, one PC with internet connection may be installed and the data relating to the group of sub-stations may be keyed in through this PC. Using a web-based software, the energy balance may be arrived at.

ii)<u>22 and 11 kV system</u>

TNEB has stated that it has already installed meters at the substations and on 22 and 11 kV feeders. Meters are to be installed at the secondary end of distribution transformers. With the readings captured at sub-station end, distribution transformer end readings and HT consumer end readings, if any, the energy balance can be assessed and line loss arrived at for the 22/11 kV system. A representative sample study may be carried out and based on sample study results, the total loss can be assessed.

iii) <u>Low Tension System</u>

The Commission has taken note of the consultancy work in progress for assessment of the consumption by unmetered services. As soon as this is over, TNEB should be in a better position to assess the line loss in the LT system.

2.11 Generation and Power Purchase

2.11.1 Issues raised on Generation and Power Purchase

Mr. T. B. Chikkoba, an expert in the electricity sector, has contended that TNEB would not be able to increase sales by about 4.5% on account of frequency correction from 48 Hz to 49Hz, and therefore the tariff calculations may not be correct. Similarly, number of HT consumers would further reduce if tariffs for this category is increased. At the same time, due to the increase in LT tariff, domestic consumption would also decrease.

Mr. Chikkoba has also suggested that TNEB should establish a Hydro Balancing fund to take care of fluctuations in Hydro generation, and has provided an historical overview of TNEB's generation costs. He has also criticised the methodology adopted for computing the energy balance. Further, TNEB has not taken the operation of the port adjacent to North Chennai Thermal Power Station (NCTPS), which has modern coal handling facilities, into account. He has contended that this would reduce costs for NCTPS.

Some objectors have objected to the purchase of high cost power from STCMS Neyveli, and have stated that TNEB should be directed to purchase power from cheaper sources before buying from IPPs. Mr. Krishnamoorthy criticised the policy of purchasing power from IPPs during the public hearings and described the different purchase costs for the power stations located at Neyveli. He also provided his assessment of the IPP related problems directly affecting Electricity Board finances in different States in India.

Several objectors submitted during the public hearings that the terms of the PPA are very unfavourable to the TNEB and these PPA’s should be rescinded as has been done in Maharashtra, to achieve substantial savings in power purchase costs. Several other objectors have suggested that the rates specified in the PPA’s are very high and should be compared to the costs of similar stations set up by the State and Central sector. Further, the TNEB should renegotiate the PPA’s with the IPPs to reduce the rates.

Industrial Associations have objected to the increased tariffs, because they argue that TNEB is purchasing power at uneconomical rates, and are not encouraging non-conventional sources of energy. The Thanjavur, Nagercoil, and Thiruvarur District Farmers Association have objected to the poor quality of coal being used in Thermal generation and the resulting high cost of generation.

The Tamil Desiya Katchi, Salem has objected to TNEB’s calculation of power generation costs and cost of supply, and has compared the costs of RSEB and other State electricity utilities. The objector has also called for the encouragement of generation from non-conventional energy sources.

One objector from Chennai has analysed the coal procurement by TNEB and other aspects where he feels that TNEB should pay special attention, such as:

- Efficacy of joint sampling system at colliery end
- Weighment system at colliery end
- System of weighment of coal rakes received at ports
- Regular reconciliation of coal received at port, dispatched from ports quantity received at discharge ports and from there dispatched to power houses.
- Reconciliation of quality, heat value.
- Heat rate, kcal/kWh, and a comparative analysis with power generated and heat value of coal paid for.

He has submitted that focus on the above issues could lead to reduction in the cost of generation.

An ex-member of TNEB suggested during the public hearings that the cost of coal handling for TNEB should be much lower, considering the investments in automated coal handling facilities at some of its stations. He also mentioned that the coal procurement strategy must be looked at afresh and significant cost reductions could be derived through utilising different coal fields, conveyance systems, etc.

The Tamil Nadu Newsprint and Papers Limited (TNPL) has mentioned that the TNEB pays a lower purchase price for energy purchased from sugar mills having a tie up with TNPL, and has submitted that TNEB should treat all sugar mills equally, regardless of their tie-up with TNPL and the use of bagasse as fuel for steam or exchange of bagasse for steam, while purchasing power.

During the public hearings, a number of submissions were made requesting for an increase in TNEB’s own thermal generation capacity. Suggestions were also received that TNEB could mobilise financial resources through low interest deposits from its consumers.

Some industrial consumers submitted that the entry tax on fuels used for captive generation should be reduced to encourage captive generation. Several industrial consumers also submitted that considering the energy shortage situation, the units having captive generation facility should be permitted to freely sell to third parties.

Mr. C. V. Narasimhan, CAG, said during the SAC meeting that TNEB should purchase power from the least cost IPPs so that the increased cost of power purchase is not passed on to consumers.

2.11.2 TNEB's Response on Generation and Power Purchase

TNEB has submitted that it is taking all measures to maintain the performance of its stations, which have in the past have won several meritorious awards for their good performance. However while the hydel stations are dependent on availability of water for their performance some of the thermal stations are getting older requiring suitable renovation measures for maintaining their peak performance. TNEB is making its best efforts at addressing these problems within its budgetary constraints.

TNEB has also stated that the hydel potential, which can be commercially exploited, has been tapped almost to the full extent. The hydel generation is dependent on the precipitation levels during the monsoon season. During the current year, lower rainfalls have resulted in reduction of the estimated generation from the hydel stations to half of the actual generation during the previous year. The hydel capacity is mainly employed as a peaking capacity. Hydel energy besides being earmarked for meeting peak demand accounts for less than 10% of the total energy requirement of the Board. The past four year hydel projection indicated that the Board cannot heavily rely on availability of hydel generation.

TNEB has stated that it is open to study the feasibility of creation of a hydro fund. However TNEB has stated that the fund should also work to benefit the TNEB when the hydel generation is inadequate.

Regarding the periodical maintenance of the plants, TNEB has submitted that it has projected the generation from the individual stations based on their annual maintenance plan and the historical efficiency levels. However, at the same time it is also taking effective steps to ensure that the stations operate at their maximum operating efficiencies.

TNEB also intends to spend nearly Rs 140 Cr on R&M capital works at ETPS, MTPS, and TTPS to improve their performance and provide reliable and efficient supply to the consumers. Periodical maintenance is supported by major works to ensure that the plant operates at high PLF levels.

On the issue of increasing the PLF of the plants, TNEB has stated that the Ennore thermal station is currently under renovation and modernisation. The refurbishment program of the Units III, IV and V has been completed and the units are back in operation. The renovation and modernisation of the units I and II is scheduled during the current year. This is expected to result in improvement in its plant load factor from a low of 19% during FY 2000-01 to 46% during FY 2002-03. The other thermal stations at Tuticorn and Mettur are expected to generate in excess of 87% PLF, which is an improvement in their performance compared to the previous year. The ability of the TNEB to undertake capital expenses such as renovation activities is also dependent on the generation of revenue surplus by the TNEB.

TNEB has submitted that it is sourcing better grade of coal from Eastern Coal field mines and suitably blending with the inferior grade of coal available based on the linkage to achieve the desired level of efficiency. TNEB employs multi-modal transport (rail cum sea cum rail route) to transport coal to its stations located in the State. This results in significant costs being incurred by the TNEB for transport of fuel to its stations, as compared to some of the neighbouring States. To meet the Ministry of Environment and Forests' stipulation on environmental pollution as well as the disposal of fly ash, the TNEB is incurring additional cost for sourcing higher grades of coal. TNEB is also examining the option of imported coal and would evaluate its decision based on the economics of the proposition.

The TNEB has submitted that the power purchase cost forms the bulk of its revenue requirement and hence all measures aimed at economising the purchase cost are being attempted. TNEB is also strictly following the merit order dispatch criteria while sourcing expensive power from outside sources. Similarly for sourcing power from the central sector stations the Availability Based Tariff (ABT) regime would be applicable from early next year in the Southern region.

On the requests for removal of entry tax on fuels used for captive power generation, TNEB has stated that the removal of entry tax on fuels used for captive generation is under the purview of the State Government. TNEB has also submitted that allowing CPP to sell to third party is not within the statutory authority of TNEB. However, it would like to add that the provision of such a clause would lead to significant loss in revenue for TNEB.

On objections and suggestions received for renegotiations of Power Purchase Agreements (PPAs) that TNEB has entered into with the IPPs, TNEB has stated that the power purchase cost for most of the IPPs have been arrived based on the capital cost clearance by CEA. Based on the terms of the PPA, the fuel expenses and certain other elements of costs are a pass through in the tariffs and vary based on the prices in the international market. However, based on the emerging realities TNEB is making its best effort to initiate a dialogue with the IPPs within the legal framework of the PPAs.

2.11.3 Commission's Ruling on Generation and Power Purchase

The Commission has thoroughly verified the TNEB's projected expenditure on generation and power purchase. The Commission has applied the principle of merit order despatch, wherein the cheapest source of power is despatched to the maximum possible extent, and only after cheaper sources of power are exhausted, the costlier sources are despatched. The Commission has undertaken a detailed analysis of each component of generation expenses, viz. basic coal cost, transportation and handling cost, as well as generation performance parameters, viz. PLF, auxiliary consumption, heat rate, etc. The Commission has verified the cost of power purchase by checking with the power purchase bills and the GoI / CERC notifications. The Commission's projection of generation and power purchase expenses has been discussed in detail in subsequent sections.

Commission agrees to the concept of creating a 'Hydraulic Balancing Fund' to take care of the fluctuations in the Hydro Generation. TNEB may look into this concept in depth and come out with a proposal in the next tariff revision.

The Commission does not find any merit in the request of M/s TNPL to treat all the sugar mills equally regardless of their tie-ups with TNPL and the use of bagasse as fuel for steam or exchange of bagasse for steam.

2.12 Annual Revenue Requirement

2.12.1 Objections raised on the ARR

One objector has submitted that the line losses as specified in the Tables 1 and 2 furnished in Form NN2 in the ARR filing is incorrect. The objector has also suggested that the expenditure incurred in installing meters in Agriculture and hut connections would be an additional financial burden on TNEB.

The TNEB Workers Progressive Union has submitted that the number of new connections in 2002-03 may be lower than the projections due to lower level of completion of building construction. Due to lower new connections and the recession in the textile industry, power purchase as stated in the ARR would be lower. The Union has also stated that the cost of thermal generation seems to be high, while the Hydro generation seems to be low.

Several political parties, including the DMK Farmer's Wing have opposed any tariff revision, and have stated that the figures furnished by TNEB in the ARR are totally incorrect and without any basis. The objectors have disputed the statistics furnished by TNEB.

One objector has specifically mentioned that information relating to the consumption pattern in LT industrial services, details of capacity wise agricultural services, selection of sample sections for domestic and commercial consumption analysis, domestic and commercial consumption analysis data, details of categories of domestic and commercial consumption in sample sections and summaries, and projections based on these sample studies have not been provided.

Some suggestions put forward in the petitions submitted to the Commission on reducing the ARR of TNEB include: Reviewing the energy required for agricultural pumps; Reducing line losses and theft by installing automatic meter reading systems, introducing group metering at the transformer low voltage side, extending 11 kV lines to take them closer to the load centres and installing epoxy transformers.

During the public hearings, several objectors stated that the interest rate for TNEB's debt portfolio was too high, compared with the low interest rates prevailing in the debt markets. They suggested that the debt could be restructured so as to take advantage of the current low interest rate, thereby reducing the revenue requirement for TNEB. Other suggestions received include the strengthening of the TN Power Finance Corporation, so as to enable TNEB to obtain low cost funds. Objections were also received on the principles and methodology of costing used by TNEB.

The price preference of 15% given to SSI's located in Tamil Nadu by TNEB in procurement of electrical equipment was criticised during the public hearings. The objector contended that the removal of the price preference, and procuring materials under open competition would result in substantial savings for TNEB. Several other petitioners have suggested that streamlining the process of procurement of raw materials by TNEB, with a focus on quality and price, could reduce TNEB's ARR.

Many objectors have suggested that increase in administration efficiency and cost control within TNEB could lead to substantial reduction in the Annual revenue Requirement. Mr. T.S.R. Venkataraman submitted during the hearings that TNEB must focus on how to reduce the loss/deficit rather than straight away increasing the tariffs and that the Depreciation should not be included in the revenue requirement. He had also stated that the 3% surplus need not be included in the ARR as it is to the account of Government.

Several objectors submitted during the public hearings that the employee expenses of the TNEB were very high, and the TNEB was not implementing the austerity measures introduced by the State Government.

During the State Advisory Committee (SAC) meeting, Mr. K. Vasudevan, Chairman, CII (Southern Region), stated that TNEB should be asked to reduce the operating cost by a minimum of 5% every year, as every reduction of 1% in the operating cost would save around Rs. 136 crore.

2.12.2 TNEB's Response for the points raised on ARR

Regarding high employee expenses, TNEB has submitted that it is undertaking adequate measures aimed at controlling its employee-related expenses. It is also following all the measures prescribed by the State Government for introducing austerity measures among public sector companies. Given the large geographical area of the State comprising of vast rural areas, adequate staff strength is required to provide reliable and prompt service to its consumers. TNEB has almost stopped fresh recruitment in its ranks and is aiming to gradually reduce its employee strength by way of natural attrition. In fact suitable measures are also being employed to make efficiency savings, which has resulted in decline in the share of employee expenses in the overall operational expenses. The employee strength has decreased from 99,484 in FY99 to 93,721 in FY 02. Moreover, the TNEB has proposed to undertake several training programmes aimed at enhancing the employee productivity.

In order to enhance the efficiency of the material procurement process, the TNEB has installed the hardware and Software for material management in 37 Distribution circles and 5 General Construction Circles (GCC). Further, the stock position of 500 fast moving items in Distribution circles and 250 items in GCC Circles is monitored on a daily basis from the Headquarters.

In order to reduce cost and improve efficiency, the TNEB out sources certain activities. These activities include third party inspection of 27 materials / equipment procured by MM and Transmission wing, repairing of sick distribution transformers involving defects in LT coils and other major repairs and provision of 15 vehicles for officers (SEs and CEs) at the Head quarters. It has also outsourced the job of establishment of substations on turnkey contracts. e.g., Almathy 400 KV SS in Chennai and its 230 KV lines.

2.12.3 Commission's Ruling on the objections raised on ARR

The Commission has taken note of the suggestions given by the stakeholders to reduce the expenditure. The Commission has assessed the prudency of the expenditure projected by the TNEB, while determining the revenue requirement of TNEB in FY03 and FY04.

As regards the submission of Mr T.S.R.Venkataraman, the Commission wishes to point out that (a) inclusion of depreciation in ARR is in order and (b) the 3% return claimed by TNEB is meant for them and not earmarked to Government as claimed in the submission.

2.13 Miscellaneous Issues

2.13.1 General Comments on the Proposal

A number of individuals and associations have objected to the Tariff Revision proposal being made available only in English.

The MDMK Party has said that two revisions within a period of two years will be a burden to all consumers.

The Indian Wind Power Association, Chennai, has submitted that the TNEB should adopt the policy of the Government of India (Ministry of Non-Conventional Energy Sources, MNES), with regard to Non Conventional Energy, and restore the incentives provided for Wind Power projects, which include the power purchase price, capital subsidy, third party sales, etc.

A number of companies with captive Non Conventional Energy sources have appealed that the wheeling and banking charges should be as per the guidelines of MNES, GoI.

A consumer in Coimbatore has objected to the additional charges for changing over from single phase to three-phase supply, and suggests that a reduction to Rs. 2000/- from Rs. 5000/- would encourage people to go for three phase connections.

A number of HT consumers have objected to the non-payment of interest on security deposit by the TNEB. The practice of paying interest was withdrawn a few years back. One Association has stated that TNEB has been taking security deposits of 1.5 months of average billing, and consumers who demonstrate regularity in paying electricity bills every month must be given an interest on the security deposit. The CII has stated that TNEB collects substantial amounts of deposits, on which it was earlier paying an interest rate of 5%, which was discontinued. The CII feels that this is another form of increase in tariff for industrial consumers and that TNEB should continue to pay interest on the deposits.

The Madras Steel Re-rollers Association has objected to the security deposit being paid as cash to TNEB, rather they have suggested that it can be through Bank Guarantees.

An Industrial association has submitted that the TNEB is collecting a non-refundable Development Charge at the time of effecting additional loads to existing consumers. The Association has submitted that collection of non-refundable development charges for additional loads, where there is no further capital expenditure in equipment, is unjustified.

Several consumers have submitted that the Delayed Payment Charge should be reduced, as the TNEB holds the security deposit of the consumer.

The Indian Chamber of Commerce and Industry submitted during the public hearings that the new connection charge of Rs. 800/- per HP discourages establishment of new industrial units. They contend that these charges form a significant component of the capital investment by Small and Medium enterprises.

HT consumers have criticised the poor quality of power supply leading to motor burn outs and other equipment failure. This has especially affected the Textile industry. Many objectors supporting the proposed tariff for agriculture have stated that the tariff should be accompanied by improved quality of supply and service.

Industrial consumers have pleaded that TNEB must notify the consumers when they plan to stop power supply. This would allow them to plan and use alternative means.

One objector has cited a survey on customer satisfaction, which found that consumers are especially dissatisfied with the laborious process adopted by TNEB for payment of bills. Other customer service issues that need to be looked at include complaints handling within a specified time frame and consumer information systems.

The Madras Chamber of Commerce & Industry, during the public hearing had pleaded that TNEB must improve its quality of supply, as the industry was incurring huge expenses because of it. For instance, they mentioned that there were 63 interruptions in the Maraimalai Nagar Industrial area during the course of a fortnight.

Many objectors have appealed for a more transparent TNEB, from which they will be able to access documents and information, so as to improve public confidence.

2.13.2 TNEB's Response to the Miscellaneous Issues

As regards measures at augmenting the wind sector, TNEB has stated that the existing policy in place has encouraged wind generation potential in the State. The State has 3045 private windmill generators, with an installed capacity of 843 MW. Around 65% of the energy produced by the private windmills are being wheeled to their own/subsidiary industries situated anywhere within the State. Only 35% of the energy produced from private windmills is sold to TNEB. The wind potential apart from being an infirm source of power is available in the local networks where the power is fed, away from the load centres. Hence, the wheeling charges and the restriction on the area of wheeling have been arrived at based on the network constraints imposed by the system to transfer power. Moreover, the costs involved for transmission of power have to be covered through imposition of wheeling charges. Given the other incentives provided by the Government from time to time for development of renewable source of power, the Board has attempted to negotiate the tariff for these sources at a competitive price as compared to the alternate firm sources of power.

On the demand for replacing the security deposit equivalent to 1.5 months tariff payable by individual consumer with the option of providing bank guarantee, TNEB has submitted that due to the significant time lag between the consumption of electricity and the actual payment of the bill, the need to collect a security deposit becomes imperative. In a typical case, a defaulting consumer's power supply is disconnected only after he has consumed electricity for about one month over and above the electricity consumed in the preceding billing period (in case of domestic consumers where bi-monthly billing is in vogue a time period of typically 2.5 months is provided to the consumer). Under such circumstances, TNEB feels that it is necessary to hold sufficient security to safeguard its interest. This also provides the needed working capital for the operations of TNEB, which would not be available, in case of a Bank Guarantee. Accepting Bank Guarantee would also lead to additional administrative problems like tracking of the validity of the Bank Guarantee etc.

TNEB has also submitted that the Delayed Payment Charge currently charged at 1.5% cannot be reduced, because it is levied as a deterrent to prompt the consumer to pay energy bills in time. The current interest charge on late payment should be equivalent to the working capital interest rate. The Delayed Payment Charge is a one-time levy charged by TNEB. In case the consumer continues to default, a penal interest is then charged. The arrears in payment by consumers result in increased working capital requirement for TNEB. Therefore, the TNEB is of the opinion that it is essential to charge the consumer at least the working capital rate of interest.

Regarding security deposit, TNEB has submitted that it is taken from the consumers because there is a significant time gap between the consumption of electricity and the actual payment of the bill. The Board has referred to the Supreme Court ruling that Security Deposit collection from consumers by the Utility is justified but it is not binding on the Utility to pay any interest on such Security Deposits. The TNEB has added that during the period the TNEB used to pay interest on security deposits, the same was correspondingly recovered through tariffs to meet the Annual Revenue Requirement.

TNEB has responded that the quality of supply can be measured in terms of (a) frequency; (b) voltage of supply; and (c) Reliability of Supply.

Regarding frequency, TNEB has stated that currently, there is a gap between the demand and on-line capacity in the system. Moreover, the demand is skewed with high peaks in the daily pattern leading to frequency deviations. TNEB is also operating in the integrated Southern Regional grid at EHV level. Hence, the frequency of the system is not under the direct control of TNEB. However, continuous efforts are made to have proper co-ordination with the other constituents of the Southern regional grid. Moreover, with the likely implementation of the Availability Based Tariffs from early next year, the constituents would be forced to maintain the frequency in the system within the specified limits. TNEB has already prepared an internal strategy to meet the requirements of the ABT regime, which would help maintain grid discipline and ultimately benefit the consumer in terms of quality power.

As regards the supply voltage, the TNEB has submitted that Low Voltage problems generally arise in situations where power needs to be supplied in remote locations and there is overloading of distribution transformers. Addressing these problems also needs significant capital expenditure to be incurred by TNEB. The TNEB had constituted a Committee to study the problem of low voltages prevailing in some of the areas. Based on the Committee’s recommendations, the generating machines were loaded for VAR generation to their capability limits wherever required, to maintain the voltage profile nearer to their rated value in their buses. Further, the minimum and maximum voltage levels and VAR generation in 230 kV and 110 kV buses are monitored on daily basis and the TNEB makes all efforts to ensure that voltage variation is within limits.

The TNEB has submitted that it always makes sincere efforts to provide reliable supply. However, due to inherent technical problems such as natural breakdowns, maintenance works, transmission/distribution capacity constraints at local level, forced load-shedding being necessary during demand peak hours to match the demand and supply, etc., interruptions are unavoidable. Further, overhead lines comprise the bulk of its transmission and distribution network and are, therefore, exposed to natural as well as human interference resulting in breakdowns. The interruption in power supply on account of any of the above stated reasons is, to a certain extent, unavoidable. Attempts are always made to restrict such power supply interruptions to the minimum possible level. TNEB had engaged an expert to inspect all major substations and prepare a list of old equipments, which had completed their useful life and were giving frequent problems. Based on the recommendations, all the equipment whose performance is not satisfactory were replaced in Chennai. In other areas, work has been taken up and necessary equipment such as breakers, CTs, switches, etc. are being procured for replacement of old unreliable equipments.

TNEB has also developed an index to regularly monitor the performance of its sub-stations and feeders. An index for feeder tripping has been developed, wherein the field data is regularly analysed. Regular maintenance of the distribution transformers, earthing of transformers, tree clearance and sagging of the lines are monitored closely. The internal benchmarks help TNEB improve upon its performance.

The Board has initiated several measures at improving the performance of its service to the consumers. It has published a ‘Citizens Charter’ specifying the performance standards in respect of various activities like effecting service connections, attending to faults and attending to consumer grievances. Some of the measures on computerisation, transparent procurement strategy and reforms which are proposed to be initiated or are being implemented have been detailed below:

For preparation of HT Bills and online collection and accounting of major revenue of the Board computerisation has been introduced. 'Inventory Management System' package has been introduced for optimum utilization of material resources and to reduce the inventory level. A package called ' Personnel Information System' has partially been completed for online information about employees in the Board. 'Pension Information System' has been implemented which has online information of 55,000 pensioners. 'Interactive Voice Response System' has been introduced for better handling of consumer complaints in Tamil Nadu.

Software has been tested and commissioned for computerisation of HT billing. The present software has the feature to monitor the consumption behaviour of HT consumers, which will enable identification of possible theft. Billing for consumption of energy and maximum demand and collection has been done for all HT consumers for the month of May 2001 onwards.

A web site has been launched in the beginning of 2000 which furnishes a lot of details such as application format for availing service connections which can be downloaded for use, steps for efficient utilisation of electric energy, tariff details, etc.

Computerisation of LT Billing and online collection has been implemented so far in 11 sections in Chennai Metro. In the whole of Chennai Metro, it is to be completed within one year. In the rest of Tamil Nadu it will be taken up within the next two years. TNEB is also looking at web based financial accounting system, GPF and Pay Bill system and MIS report generation.

TNEB has recommended to the Government that the Board is to be reorganised into Profit and Responsibility Centers (PRC) with each PRC having sufficient autonomy. There would be one generation PRC, one transmission PRC and multiple distribution PRC. As per the plan, the head office will be retained as a small core group to ensure continuity and to discharge responsibilities relating to setting up of policies and frame works, which would be uniformly applicable to all PRCs. There would be adequate delegation of authority away from head office to the PRC level – but with increased responsibility and accountability. A high level steering committee will be constituted to provide direction and strategic inputs on various complex issues that would undoubtedly arise during the transition process.

2.13.3 Commission's Ruling on the Miscellaneous issues

The Commission agrees to the demand for the availability of tariff proposal in Tamil also and directs TNEB to submit the future proposals with a Tamil translation.

Regarding the rate for purchase of energy from non-conventional energy sources, including wind power, the Commission is of the opinion that these issues are outside the scope of the present tariff determination exercise and would have to be dealt with separately. A separate Order would be issued after further hearing both parties and further analysis by the Commission. Similarly, the banking and wheeling charges applicable for such renewable projects have to be determined by the Commission separately, and the Commission will issue further Orders in this regard separately.

The Commission agrees with the TNEB's view that the delayed payment charges should act as a deterrent to default by consumers in regular payment of their electricity bills, and has hence retained the delayed payment charges at 1.5%.

The Commission directs TNEB to maintain a basic level of quantity and quality of supply for HT consumers with adequate information provided to consumers on the quantity and quality of supply.

The Commission appreciates the measures outlined by the TNEB for improvement in the Information systems. However, the Commission is of the opinion that more needs to be done, especially in the area of information database regarding the category-wise and slab-wise consumption of different categories. The TNEB is directed to maintain consumption data strictly as per the tariff schedule, from now onwards. Further, the TNEB should also maintain data regarding the category-wise rebates earned and penalties charged from each consumer category.