TECA Comments on TNERC Tariff Order 2017

1. There is no increase in the tariff for any category of consumers in the new tariff for electricity supply coming into effect from 11-08-2017. Tamil Nadu Electricity Regulatory Commission (TNERC) has announced the electricity tariffs for the year 2017-18 on 11-08-2017 in its order (TO) in T P 1 of 2017 for the electricity supply by Tamil Nadu Electricity Generation and Distribution Company (TANGEDCO). The present tariff and the proposed tariff are given in Chapter 6, Table 5-4, Pages 278 to 281.
2. The major relief given is in the Cross Subsidy Surcharge (CSS) for the High Tension (HT) consumers availing Open Access (OA) power from supplier other than TANGEDCO. The CSS been brought down to Rs 1.67 per KWHr (Unit) for HT 1A (Industrial Consumers) and Rs 1.98 per Unit for HT III (Commercial Consumers) (Page 309 of the Tariff Order). This rate is the same regardless of the injection and drawal voltage. This indeed a big relief. It has been given due the compulsion in National Tariff Policy which limits the CSS to 20% of the tariff. Earlier it was in excess of Rs 3.50 per Unit. The OA power should prove to be competitive now.
3. Another relief in the levy of the penal charges on 11 KV and 22 KV consumers for Harmonics Control. The penal charges are not leviable on such consumers (Pages 257 and 320 of TO). The decision of the High Court of Madras in W P No 25 of 2015 has been adopted in the TO. The refund of the amounts paid by the consumers on this account for the period before this order has not been dealt with. The consumers have to approach TANGEDCO and/or the Court.
4. There is no change in the Time of Day (ToD) Tariff, commonly known as Peak Hours charges (Page 319). There is no change in the period of Peak Hours or the rate of extra charges for consumption during that period. The Peak Hours are 06:00 Hrs to 09:00 Hrs and 18:00 Hrs to 21:00 Hrs and the consumption during these hours would attract an extra 20% charges. The consumption in the Off Normal Hours, that is, from 22:00 Hrs to 05:00 Hrs would be entitled to a rebate of 5%. TANGEDCO’s proposal to extend the Peak Hours in the evening till 22:00 Hrs was not accepted. This ToD Tariff is applicable only to HT 1A Industrial Consumers as before. Other HT and LT Category Consumers are exempt. The determination of the ToD Charges needs to be challenged on many counts.
5. APTEL had directed TNERC to determine the Voltage-Wise Cost of Supply (VCoS) in its order dated April 9, 2013 and fix the tariff for the consumers on the basis of this cost. This VCoS is also the basis for assessing the CSS. However TANGEDCO has not been co-operating on this matter and TNERC has been computing it on the basis of many unverified and gross assumptions. This time also this has been done (Page 296 onwards). The reliability of these figures is not high. The VCoS per Unit for 11 KV supply is Rs 5.55 and for 22KV supply is Rs 5.44 and for LT, it is Rs 6.00. The Average Cost of Supply is Rs 5.85 per Unit (Page 292).
6. The proposal of TANGEDCO for enhancement of the minimum level of power factor from 0.90 to 0.95 for HT Consumers has been rejected (Page 259). The power factor compensation for lower power factor than this would be from 1% to 2% for every reduction of 0.01%. (Page 321). TNERC has asked to study the possibility of introduction of KVAh metering instead of the power factor stipulations and compensation. Some states have switched to KVAh metering.
7. There no change in the Demand Charges or on the determination of the billable Maximum Demand. However TNERC has directed that the period of integration for Demand Charges be reduced to 15 minutes for all consumers (Page 259). This would affect those who have spikes in their demand, like industries using arc or induction furnaces. There is not much discussion in the TO on the Demand Charges. The Demand Charges in Tamil Nadu are among the highest in the country and needs to be reduced.
8. The Average Billing Rate (ABR) and its comparison with the Voltage-wise Cost of Supply (VCoS) gives a good picture of the Cross Subsidy embedded in the tariffs. The figures regarding these are found in Table 5-22 in page 300. For the HT 1A Industrial consumers, the ABR is Rs 8.37 per Unit and the VCoS is 5.27. The Cross Subsidy is Rs 3.10 per Unit. For HT Commercial consumers, the Cross subsidy is Rs 4.46 per Unit and the LT Commercial Consumers, it is Rs 2.75 per Unit.
9. Reduction of Cross subsidy is one of the objectives of the Electricity Act, 2003. Cross Subsidy is the additional charges over and above the average cost of supply that subsidising consumers (usually HT Industrial and Commercial Consumers) pay so that the subsidised consumers (usually the domestic, agricultural and weaker section consumers) could pay less than the average cost of supply. Recognising that the Cross Subsidy could only be reduced over a period of time, the Tariff Policy has been asking TNERC to lay down the period by which such subsidy would be reduced to 20%. So far TNERC has been resisting doing that. The National Tariff Policy, 2016 has mandated doing this now. Therefore TNERC has laid down the roadmap for reduction of the Cross Subsidy in the present TO (Page 302). The year by which the Cross Subsidy would be reduced to 20% is 2028, with a reduction every year of 2% per year from the present 43% for HT IA Industrial Consumers and 2.5% per year from the present 69% for HT III Commercial Consumers. Even this reduction is conditional on many factors. TNERC must be made to lay down a shorter and specific plan (Table 5-23, Page 302).
10. TNERC has refused to set tariff for spinning mills with a separate tariff category. The spinning mills are among the largest and steadiest consumers of power.
11. TNERC has deferred the consideration of the Net Metering Demand for the separate petition filed by TANGEDCO on this matter. It has also not dealt with monthly billing for LT Consumers. There many other matters on which TNERC has not been positive. They are dealt in Chapters 2 and 6 of the TO.
12. TNGEDCO has given some reasons for not acceding to the direction of the TNERC for the separation of generation function from TNGEDCO and for dividing the distribution function among four or five companies (Page 71). This again is a matter to be pursued. If the Electricity Act, 2003 is amended to separate the “carriage” and “content”, this may not be needed.

The final transfer scheme of TNEB’s assets to TANGEDCO and TANTRANSCO dated 13-08-2015 is in Appendix IV of the TO (Page 388).

1. As in previous orders TNERC has given a number of directives in the TO which are summarized and given in Chapter 7 (Page 343). Many of these directives were in previous orders. TANGEDCO has been cheerfully ignoring these directives. TNERC has not also bothered itself about them. If TNERC uses its powers to punish non-compliance, there would be some credibility about these directives.
2. TANGEDCO has estimated that it would save Rs 3,514 Crores per year in revenue expenditure and Rs 2,282 Crores per year in loan repayments by joining the UDAY Scheme of the Union Government. The salient features of the MoU signed by TANGEDCO with Govt of India are given in page 253. TANGEDCO has said that the reduction in cost of operation due to UDAY would be passed on to the consumers. However there is no reduction in tariff this year for HT consumers. It appears that the savings in cost for TANGEDCO would be applied to the reduction of the subsidy burden of the Govt of Tamil Nadu (Paras 5.3.8 and 9, Page 276 and Table 5-6, Page 283).There is likely to be a saving of Rs 2,064 Crores in the subsidy given by Govt of Tamil Nadu. There will be no benefit to the consumers.
3. Regulatory Assets: Regulatory Assets represent the additional charges to be levied on the consumers in future years to compensate for the losses in the earlier years TNERC has finalised the Regulatory Assets at Rs 10,433 Crores as on 31-03-2017. The period in which this amount would be recovered is not specified (Page 291).
4. In the year 2017-18, TANGEDCO is expected to sell 81,717 MU of power, earning Rs 47,838 Crores at an average cost of supply (ACoS) of Rs 5.85 per Unit (Page 292).
5. TNERC has advised TANGEDCO to buy power from the power exchanges for about 10% of its needs as the prices are competitive (Page 238). It has stated that the landed cost of the power from the exchange is less than the variable cost of the power purchased. Even in the case where TANEDCO has commitment to buy power, it can just pay the fixed costs to the vendor and not buy power and purchase it at the lower cost from exchange. Whether TANGEDCO would take this advice is to be seen. The purchase of power from the exchange is an impersonal and transparent transaction while that from private power producers and traders is a bilaterally negotiated deal. This advice may also be extended to power generated from TANGEDCO’s own plants which have high variable costs.
6. The “Must Run” status has been given to Nuclear, Wind, Solar and Co-Generation Plants. This means TANGEDCO must use the power from these sources before availing other sources (Page 238). The Merit Order Dispatch (MoD) Stack for 2017-18 is given in page 239. TANGEDCO must buy from outside sources in the order specified in the stack. Except for some outliers, the variable cost of these sources is Rs 3 or less per Unit.
7. During the year 2017-18, the total revenues of TANGEDCO would be Rs 50,069 Crores consisting of revenue from sales of Rs 41,185 Crores and subsidy from Govt of Tamil Nadu of Rs 8,885 Crores. The total revenue requirement for purchase of power and operational needs would be Rs 47,838 Crores. TANGEDCO is expected to make a revenue surplus of Rs 2,232 Crores. In the previous year, the revenue deficit was Rs 2,864 Cores. After many years, TANGEDCO would earn a revenue surplus (Page 251).
8. The total power requirement of TANGEDCO for the year 2017-18 is estimated at 98,821 MU (Page 192). The sales would be 81,716 MU consisting of HT sales of 20,999 MU and LT Sales of 60,717 MU. The balance of 17,105 would be transmission and distribution losses (17.3% of the purchased Units).
9. To meet this requirement of 98,821 MU, TNERC has approved the purchase of 97,903 MU (Page 244) at a total cost of Rs 40,179 Crores (Rs 4.10 per Unit). The sources of this purchase and their average cost per Unit are as follows:

Source Quantum in MU Av Cost Rs/Unit

TANGEDCO Thermal 24,425 4.21

TANGEDCO Non Thermal 5,717 1.43

Central Govt Plants 31,619 3.46

Private Power Producers 825 6.83

Renewables 9,636 4.26

Traders 25,690 4.04

Total 97.903 4.10

As could be seen from the above, the thermal plants of TANGEDCO are a high cost source. If the Distribution function of TANGEDCO is separated from it, the thermal plants of TANGEDCO may not find buyers as is happening in many north Indian thermal plants. At least 5 Traders are offering power at less than Rs 4 per Unit to TANGEDCO itself. The Gujarat State Electricity Board has issued a tender recently for thermal power producers to offer bids for producing power using the coal allotted to the State and fixed the maximum price at Rs 2.87 per Unit. A study need to be done on the thermal power stations in other states about their cost of production and the reduction that could be achieved in the cost of TANGEDCO’s plants.

1. In the power purchases approved there is an interesting data on page 245. TANGEDCO would be buying 2,294 MU of solar power at a cost of Rs 6.85 per Unit. The present cost of solar power is less than Rs 3.50 per Unit. Considering this, TANGEDCO the additional cost incurred by TANGEDCO on purchase of this solar power is Rs 768.5 Crores per year. This works out to be 9 paisa for every Unit of power sold. In connection please refer to the Para 2.9.4 on Page 36 which raises a connected issue.
2. TANGEDCO has committed to bring down the Aggregate Technical and Commercial Losses (AT&C Losses) to 13.5% by 2018-19 to Govt of India under the UDAY Scheme. TANGEDCO’s submission was that the losses were 14.43% in 2015-16. TNERC has now fixed the target of 13.83% for 2017-18. TANGEDCO has admitted a Transmission loss of 4.5%. Realising these targets would require strengthening the infrastructure, monitoring the power flow and elimination of theft and wastages.
3. The Table 4-3 in page 191 gives an interesting data. It shows the distribution losses in Trichy as the highest at 19.1% and lowest in Erode at 9.5%. In Coimbatore, it is about 11.2%. Over all in the state it is 12.91%.
4. Another interesting data is how many persons have taken the present tariff determination proceedings seriously. The number of persons who have submitted written statements to TNERC on the present proposals of TANGEDCO was only 22. The number of persons who have attended the hearings and submitted their views was 8 in Chennai, 18 in Madurai and 147 in Coimbatore. The number of persons who spoke in the hearings held in various centres was 21 in Chennai, 13 in Madurai and 41 in Coimbatore. (Page 371).